

HAWAII
GOVERNOR'S
ANNUAL
REPORT

1901-06

J
955
.N7



PROPERTY OF
*University of
Michigan
Libraries*
1817



ARTES SCIENTIA VERITAS

J
955
N7

REPORT

OF THE

GOVERNOR OF THE TERRITORY OF HAWAII

TO THE

From

SECRETARY OF THE INTERIOR.

1902.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1902.

REPORT

OF THE

GOVERNOR OF THE TERRITORY OF HAWAII

TO THE

SECRETARY OF THE INTERIOR.

1 9 0 2 .

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1 9 0 2 .

REPORT

OF THE

GOVERNOR OF THE TERRITORY OF HAWAII.

EXECUTIVE CHAMBER, TERRITORY OF HAWAII,
Honolulu, September 30, 1902.

SIR: I have the honor to transmit, in response to your letter of July 5, the following report of the affairs, progress, and development of the Territory of Hawaii for the fiscal year ending June 30, 1902:

POPULATION.

From the United States Census Report for 1900, and other sources, I have obtained the following interesting data on this subject:

Increase of population, by sexes, from 1890 to 1900.

	1890.	1900.	Increase.	Per cent.
Males	58,714	106,369	47,656	81.2
Females	31,276	47,632	16,356	52.3
Total.....	89,990	154,001	64,011	71.1

Percentage of sexes to whole population, 1890 and 1900.

	Males.	Females.
1890.....	65.2	34.8
1900.....	69.1	30.9

Distribution of population, by islands, in 1890 and 1900.

	Hawaii.	Kauai and Nihau.	Maul. Molokai, and Lanai.	Oahu.
1890	26,754	11,859	20,183	31,194
1900	46,843	20,734	27,920	58,504
Increase	20,089	8,875	7,737	27,310

4 REPORT OF GOVERNOR OF THE TERRITORY OF HAWAII.

Number of females to 100,000 males, 1890 and 1900.

1890	53,268
1900	44,780
Relative decrease	8,488

Population by sex, nativity, and race, 1900.

Males	106,369
Females	47,632
Native born	63,221
Foreign born	90,780
Foreign white	12,749
Total	154,001
Native white:	
Native parents	37,918
Foreign parents	16,223
Chinese	25,767
Japanese	61,111
Negroes	233

The designation "Native white—native parents," used in the report of the United States Census for 1900, means native white persons having both parents native born, one parent native born, and one birthplace unknown, or both parents, birthplace unknown; while the designation "Native white—foreign parents," means native white having one or both parents foreign born.

Hawaiians and part Hawaiians are included with native-born white persons having one or both parents native born, as "Native white."

Increase of native and foreign born population from 1890 to 1900.

	1890.	1900.	Increase.	Per cent.
Native born	48,117	63,221	15,104	31.4
Foreign born	41,873	90,780	48,907	116.8

Percentage of native and foreign born to whole population.

	Native born.	Foreign born.
1890	53.5	46.5
1900	41.1	58.9

Number of foreign born to 100,000 native born.

1890	87,023
1900	143,592
Relative increase	56,569

Percentages of native white—native parents; native white—foreign parents; foreign white, and Chinese, Japanese, and negroes of total population, 1900.

Native white—native parents	24.6
Native white—foreign parents	10.5
Foreign white	8.3
Chinese, Japanese, and negroes	56.6

Percentage of native and foreign white of whole population for 1890 and 1900.

Year.	Total white.	Native white.		Foreign white.
		Native parents.	Foreign parents.	
1890	67.4	38.3	13.3	15.8
1900	43.4	24.6	10.5	8.3

This decrease is due to the large immigration of Chinese and Japanese, particularly the latter.

Males and females of all nationalities in 1890 and 1900.

	Males.		Females.		Totals.	
	1890.	1900.	1890.	1900.	1890.	1900.
Hawaiians	18,364	15,642	16,072	14,157	34,436	29,799
Part Hawaiians	3,085	3,971	3,101	3,886	6,186	7,857
Caucasians	11,889	16,531	8,811	12,288	20,700	28,819
Chinese	14,522	22,296	779	3,471	15,301	25,767
Japanese	10,079	47,508	2,281	13,603	12,360	61,111
South Sea Islanders	404	263	184	152	588	415
Negroes		158		75		233
Other nationalities	371		48		419	
Total	58,714	106,369	31,276	47,632	89,990	154,001

Percentages of the sexes to total number of each class.

	Males.		Females.	
	1890.	1900.	1890.	1900.
Hawaiian	53.3	52.5	46.7	47.5
Part Hawaiian	49.9	50.5	50.1	49.5
Caucasian	57.3	57.4	42.7	42.6
Chinese	94.9	86.5	5.1	13.5
South Sea Islanders	68.7	63.4	31.3	36.6
Japanese	81.5	77.7	18.5	22.3
Negroes		67.8		32.2
Other nationalities	88.5		11.5	

Foreign-born population according to country of birth.

Africa	22	Italy	58
Asia ^a	5	Japan	5,623
Atlantic islands	1,156	Mexico	19
Australia	130	Norway	24
Austria	225	Pacific islands ^b	593
Belgium	18	Poland	72
Canada, English	339	Portugal	6,512
Canada, French	12	Roumania	2
Central America	7	Russia	58
China	27,741	Scotland	427
Cuba	4	South America	33
Denmark	72	Spain	202
England	739	Sweden	140
Finland	28	Switzerland	28
France	100	Turkey	4
Germany	1,154	Wales	21
Greece	55	West Indies	26
Holland	19	Other countries	10
Hungary	5	At sea	67
India	15		
Ireland	225	Total	90,780

^a Except China, Japan, and India.

^b Except Philippine Islands.

6 REPORT OF GOVERNOR OF THE TERRITORY OF HAWAII.

Distribution of foreign-born population according to country of birth.

Islands.	Atlantic islands.	Austria.	Canada and Newfoundland.	China.	England.	Germany.	Ireland.	Japan.	Norway and Denmark.	Pacific islands.	Portugal.	Scotland.	Spain.	Sweden.	Other countries.	Total.
Hawaii ..	522	99	79	4,202	142	135	25	21,314	31	a 49	2,217	163	54	40	162	29,234
Maul and Lanai ..	154	64	9	2,988	49	71	15	10,465	44	161	1,032	39	27	9	64	15,191
Molokai ..	12	.....	2	77	6	11	4	382	6	11	6	1	.....	2	9	529
Oahu	392	36	238	11,209	507	603	172	14,337	139	309	2,530	185	109	85	503	31,354
Kauai	76	26	11	3,265	35	334	9	9,735	50	63	727	38	12	4	84	14,469
Niihau .....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....	.....	1	3

a Except Philippine Islands.

Number of Chinese and Japanese in 1890 and 1900.

	1890.	1900.	Increase.	Per cent.
Chinese	17,002	25,767	8,765	51.5
Japanese	12,360	61,111	48,751	394.4

Number of Chinese, Japanese, and negro males and females, 1900.

	Chinese.	Japanese.	Negro.
Males	22,296	47,508	158
Females	3,471	13,603	75
Total	25,767	61,111	233

Density of population to square mile, 1890 and 1900.

1890	13.9
1900	23.9

Population of Honolulu, 1890 and 1900.

	Males.	Fe-males.	Native born.	Foreign born.	White.	Chi-nese.	Japa-nese.	Ne-groes.	Total.
1890 .....	.....	.....	.....	.....	.....	.....	.....	.....	22,907
1900	24,746	14,560	21,876	17,435	23,916	9,061	6,179	147	39,306

Foreign-born population of Honolulu according to country of birth.

Africa	8	Finland	8
Asia	1	France	78
Atlantic islands	329	Germany	553
Australia	91	Greece	45
Austria	34	Holland	11
Belgium	8	Hungary	2
Canada (English)	225	India	8
Canada (French)	4	Ireland	162
Central America	2	Italy	54
China	6,842	Japan	5,595
Cuba	3	Mexico	10
Denmark	48	Norway	69
England	468	Pacific islands, except Philippine ..	293

Foreign-born population of Honolulu according to country of birth—Continued.

Poland	7	Switzerland	10
Portugal	2,081	Turkey	3
Roumania	2	Wales	13
Russia	22	West Indies	18
Scotland	148	Other countries	2
South America	11	Born at sea	18
Spain	72		
Sweden	77	Total	17,435

Persons of school age 5 to 20 years, classified by nativity and race.

Native born	25,285
Foreign born	8,489
Native white:	
Native parents	12,798
Foreign parents	9,061
Foreign white	1,968
Chinese and Japanese	9,868
Negro	79
Total	33,774

Percentage of native and foreign born, native white—native parents, native white—foreign parents, Chinese, Japanese, and negroes of school age, for 1900.

Native born	74.9
Foreign born	25.1
Native white:	
Native parents	37.9
Foreign parents	26.8
Foreign white	5.8
Chinese, Japanese, and negroes	29.5

Percentage of persons attending school of total persons 5 to 9, 10 to 14, and 15 to 20 years of age, respectively.

5 to 9 years	57.7
10 to 14 years	84.2
15 to 20 years	12.3

Illiteracy in the population 10 years old and over.

Males	31.8
Females	36.6
Native white	5.9
Foreign white	43.1
Chinese, Japanese, and negro	44.4
Total	33.1

Population 10 years old and over who can not speak English.

	Total population 10 years old and over.	Total.	Native born.		Foreign born.	
			Males.	Females.	Males.	Females.
Hawaiians	23,386	10,965	5,380	5,641	1	3
Part Hawaiians	4,701	308	123	185		
Caucasians	20,898	3,901	100	142	1,682	1,977
South Sea Islanders	381	218	1	2	122	93
Chinese	22,840	15,996	91	119	14,405	1,381
Japanese	55,397	47,746	12	22	38,181	9,581
Negroes	165	14	6	2	6	
Aggregate	127,768	79,148	5,653	6,113	54,397	12,985

8 REPORT OF GOVERNOR OF THE TERRITORY OF HAWAII.

Conjugal condition of the population 15 years of age and over.

	Total.	Single.	Married.	Widowed.	Divorced.	Unknown.
Men.....	88,450	52,800	32,464	2,493	247	446
Women	30,880	4,655	24,048	1,998	120	59

Percentage of single, married, widowed, divorced, and unknown men and women 15 years of age and over.

	Single.	Married.	Widowed.	Divorced.	Unknown.
Men.....	59.7	36.7	2.8	0.3	0.5
Women.....	15.1	77.9	6.4	.4	.2

Of males over 10 years old 90.4 per cent and of females over 10 years old 17.6 per cent are engaged in occupations for profit.

There were in 1900, 32,336 dwellings in the Territory, with an average of 4.8 persons to a dwelling, and in the same year there were 29,763 private families with an average of 3.7 persons each.

Total dwellings and private families in Honolulu and persons to a dwelling and to a family, 1900.

Total population	39,306
Total dwellings.....	6,966
Private families	7,161
Persons to a dwelling.....	5.6
Persons to a private family.....	4.5

Arrivals and departures of Chinese and Japanese for the year ending June 30, 1902.

	Chinese.			Japanese.			Total.		Grand total.
	Men.	Women.	Children.	Men.	Women.	Children.	Chinese.	Japanese.	
Arrivals from the Orient	260	14	6	6,355	3,877	668	280	10,900	11,180
Departures for the Orient	1,606	99	181	2,992	732	607	1,886	4,331	6,217
Departures for San Francisco				560	32	8		600	600

RECAPITULATION.

	Total arrivals.			Total departures.		
	Men.	Women.	Children.	Men.	Women.	Children.
Chinese	260	14	6	1,606	99	181
Japanese.....	6,355	3,877	668	3,552	764	615
Total.....	6,615	3,891	674	5,158	863	796

NATIVE HAWAIIANS.

Year.	Hawaiians.			Part Hawaiians.		
	Total.	Males.	Females.	Total.	Males.	Females.
1890	34,436	18,364	16,072	6,186	3,085	3,101
1896	31,019	16,399	14,620	8,485	4,249	4,236
1900	29,799	15,642	14,157	7,857	3,971	3,886

Arrivals and departures of Chinese and Japanese, etc.—Continued.

PERCENTAGE.

	1890.		1896.		1900.	
	Males.	Females.	Males.	Females.	Males.	Females.
Hawaiian	53.3	46.7	52.9	47.1	52.5	47.5
Part Hawaiian	49.9	50.1	50.1	49.9	50.5	49.5

FINANCES.

Appropriations.

	Appropriation.	Drawn.	Balance.
Permanent settlements	\$17,000.00	\$7,525.00	\$9,475.00
Office of the secretary of the Territory	33,600.00	7,205.70	26,394.30
Judiciary department	167,420.00	86,165.35	81,254.65
Department of the attorney-general	620,290.00	260,068.97	360,221.03
Treasury department	426,620.00	133,460.16	293,159.84
Department of public works	2,678,071.58	705,341.78	1,972,729.80
Department of public instruction	84,475.00	309,263.01	535,211.99
Commissioner of public lands	38,710.00	13,798.80	24,911.20
Commissioner of agriculture and forestry	34,632.00	12,670.33	21,961.67
Survey department	73,350.00	30,145.34	43,204.66
Board of health	621,166.00	227,799.23	393,366.77
Band	47,246.00	18,870.83	28,375.17
Military	20,070.00	7,895.09	12,174.91
Auditing department	31,000.00	12,092.13	18,907.87
Fire claims commission	1,514,750.93	12,323.55	1,502,427.38
Warrants outstanding, not presented June 30, 1901	176,495.45	175,728.67	766.78
Expenses extra session legislature, 1901	24,223.28	24,213.17	10.11
Unpaid bills and claims June 30, 1901	100,549.36	92,599.93	7,949.43
Outstanding contracts	28,373.95	22,479.95	5,894.00
Total	7,498,033.55	2,159,646.99	5,338,386.56

Cash statement July 1, 1901, to June 30, 1902, current account.

RECEIPTS.

Cash on hand July 1, 1901		\$75,994.97
Tax bureau:		
Oahu collections	\$926,227.56	
Maui collections	186,411.97	
Hawaii collections	363,385.65	
Kauai collections	182,081.91	
		\$1,658,107.09
Treasury collections:		
Licenses	142,736.25	
Realizations	26,024.99	
Revenue Stamps	61,095.00	
		229,856.24
Public instruction:		
Book account	4,844.60	
Rents	1,077.50	
Tuition fees	288.00	
		6,210.10
Harbor master, Honolulu:		
Wharfage	56,531.97	
Towage	1,942.65	
Pilotage	33,176.09	
		91,650.71
Public works office:		
Rents	45,433.24	
Realizations	5,654.43	
Land sales	36,459.00	
Sewerage	13,999.83	

10 REPORT OF GOVERNOR OF THE TERRITORY OF HAWAII.

Cash statement July 1, 1901, to June 30, 1902, current account—Continued.

RECEIPTS—continued.

Public works office—Continued.

Excavator	\$8,503.40	
Weights and measures	235.25	
Honolulu market	13,432.10	
Garbage	4,970.50	
		\$128,687.75
Fines and costs		82,612.65
Kerosene warehouse, Honolulu		5,884.44
Kerosene storage, Hilo		538.22
Wharfage, Hilo		2,664.45
Honolulu waterworks		97,501.15
Hilo waterworks		6,292.20
Koloa waterworks		275.00
Laupahoehoe waterworks		157.50
Wailuku waterworks		4,196.75
Conveyance bureau		17,658.50
Land revenue		103,886.69
Land sales		13,036.49
Prison receipts		381.80
Registry of brands		45.00
Government realizations		20,397.08
Powder storage, Honolulu		2,735.60
Powder storage, Hilo		397.40
Total receipts July 1, 1901, to June 30, 1902		\$2,473,172.81

EXPENDITURES.

Permanent settlements	\$8,500.00	
Secretary of Territory	8,020.42	
Judiciary department	108,077.25	
Treasury department	29,531.21	
Auditing department	13,451.13	
Conveyance bureau	9,599.47	
Tax bureau	63,300.33	
Public works department	776,174.72	
Governor	30,738.13	
Public grounds	7,475.26	
Agriculture and forestry	14,233.00	
Fire department	66,937.82	
Survey department	33,500.44	
Bureau of waterworks	63,640.10	
Public lands commission	15,950.70	
Attorney-general	309,672.62	
Public instruction	376,496.26	
Board of health	273,809.96	
Total, being warrants issued by auditing department		\$2,208,108.82
Warrants outstanding July 1, 1901		176,495.45
Total		2,384,604.27
Less warrants outstanding June 30, 1902:		
Of last period	766.78	
Of this period	296,661.09	
		297,427.87
Balance, being amounts of warrants paid by treasury:		
Of last period	175,728.67	
Of this period	1,911,447.73	
		2,087,176.40

REPORT OF GOVERNOR OF THE TERRITORY OF HAWAII. 11

Cash statement July 1, 1901, to June 30, 1902, current account—Continued.

EXPENDITURES—continued.

Interest on bonded debt, commission, etc.	\$48, 257. 42	
Expenses legislature, 1901.	24, 213. 17	
Land sales (transferred to special deposit)	13, 036. 49	
Road tax (transferred to special deposit)	89, 353. 00	
Total, being amount of cash disbursements by treasury, other than by warrants.	\$174, 860. 08	
Total cash disbursements.		\$2, 262, 036. 48
Cash on hand June 30, 1902.		287, 131. 30

Loan fund account.

Cash on hand July 1, 1901.	\$150. 17
Outstanding warrants paid.	63. 22
Cash on hand June 30, 1902.	86. 95

Subdivision of tax receipts.

Real estate.	\$532, 637. 09
Personal property.	571, 248. 69
Insurance.	3, 846. 00
Carriages.	8, 540. 00
Carts and drays.	7, 547. 00
Road tax.	92, 594. 00
School tax.	92, 592. 00
Poll tax.	46, 299. 00
Dog and dog tags.	4, 325. 19
Ten per cent penalty.	9, 586. 27
Advertising costs.	587. 15
Income tax.	287, 366. 80
Court costs.	937. 90
Total.	1, 658, 107. 09

Property subject to ad valorem taxes according to assessment appraisements.

Real estate.	\$52, 823, 352. 00
Personal estate.	57, 565, 226. 00
Total.	110, 388, 578. 00

Statement of bonded indebtedness from July 1, 1901, to June 30, 1902.

	Balance July 1, 1901.	Paid by United States Government.	Balance June 30, 1902.
Loan act of—			
October 15, 1886.	\$990, 800	\$5, 800	\$985, 000
August 15, 1888.	2, 000	2, 000	
October 24, 1890.	4, 000		4, 000
September 7, 1892.	13, 800	13, 700	100
January 1, 1893.	6, 000	6, 000	
June 13, 1896.	936, 000		936, 000
Total.	1, 952, 600	27, 500	1, 925, 100

12 REPORT OF GOVERNOR OF THE TERRITORY OF HAWAII.

Statement of settlements by United States Government to June 30, 1902.

Amount of Hawaiian debt assumed by United States Government ...	\$4,000,000.00
Amount of bonds taken up, July 1, 1901,	
to June 30, 1902	\$27,500.00
Amount of bonds taken up previous to	
July 1, 1901.....	2,222,800.00
Total bonds taken up June 30, 1902.....	\$2,250,300.00
Amount paid to Postal Savings Bank depositors	764,570.31
Total settlement by United States Government.....	3,014,870.31
Balance to be settled by United States Government.....	985,129.69
Total Hawaiian bonded debt for which the Territory of Hawaii remains liable	939,970.31

Comparative statement of taxes collected from all the taxation divisions.

	July 1, 1899, to June 30, 1900.	July 1, 1900, to June 30, 1901.	July 1, 1901, to June 30, 1902.
Real estate	\$383,030.84	\$444,061.63	\$532,637.09
Personal property	377,730.12	490,392.69	571,248.69
Insurance tax	2,882.60	3,223.65	3,846.00
Dogs and tags	6,018.85	4,135.86	4,325.19
Poll	69,303.00	49,922.00	46,299.00
School	138,429.00	99,838.00	92,592.00
Ten per cent penalties	8,941.83	7,699.43	9,586.27
Advertising costs	1,157.00	1,695.15	587.15
Court costs			937.90
Carriages	6,083.00	7,387.50	8,470.00
Carts and drays	6,808.00	7,226.00	7,617.00
Road	138,322.00	99,844.00	92,594.00
Total	1,138,706.24	1,215,325.91	1,370,740.29

This table exhibits the annual increase for a period of three years of tax receipts on account of real and personal property subject to ad valorem taxes, and an account of insurance business and certain classes of personal property subject to special taxes, and the annual decrease for the same period of poll, school, and road taxes. An income tax was imposed by the legislature of 1901 by which \$287,366.80 was realized during the fiscal year.

COMMERCE.

The shipments of merchandise, not including specie, for the past year are less in value than that of the shipments of the year ending June 30, 1901, by \$3,260,695.43. All of this falling off in the value of merchandise shipped from the Territory during last year, except \$86,885.02, is chargeable to the one item of sugar and is due solely to a decrease in the market value of that article and not to a diminished production, the sugar shipped the past year being 720,553,357 pounds, against an aggregate shipment of 690,879,234 pounds of the year before, or an increase of 29,674,123 pounds.

The following items also show a falling off from the figures of value of the preceding year, as follows:

Rice.....	\$7,105.00
Coffee	185,253.27
Wool	71,503.94
Honey	3,315.00
Molasses (none shipped the past year).....	4,615.00
Fruit.....	10,006.65
Curios (none shipped the past year).....	1,696.00
Total decrease	283,494.86

The following items show an increase in value of shipments over the preceding year, as follows:

Hides	\$1,418.34
Sundries.....	195,191.50
Total.....	196,609.84

The difference of \$86,885.02 shows the actual falling off in the value of shipments other than sugar of the past year as compared with the year before.

Of the total value of shipments, not including specie, from the Territory during the past year of \$24,793,735, \$38,813 represents the value of foreign merchandise shipped, as against a value of \$24,754,922 of domestic merchandise shipped. Of this total value the shipments to foreign countries were worth \$63,547, and those to the mainland were worth \$24,730,188.

I am indebted to the courtesy of the collector of customs for the district of Hawaii for the following tables:

Total value of all articles exported from the Territory of Hawaii and imported from foreign countries for the year ending June 30, 1902.

	Exports.	Imports.
United States.....	\$24,730,188	(a)
Great Britain.....		\$259,311
British colonies.....	33,928	984,565
Germany.....	1,461	432,498
Hongkong.....	9,547	198,657
Japan.....	8,106	909,112
Chile.....		271,173
France.....		9,231
Other countries.....	10,505	22,016
Total.....	24,793,735	3,086,583

a No record.

Total value of merchandise shipped to the United States and exported to foreign countries during the fiscal year ending June 30, 1902.

	Quantity.	Value.
	<i>Pounds.</i>	
Sugar, raw	720,553,357	\$23,920,118
Coffee.....	1,210,098	126,644
Rice.....	342,300	15,422
Fresh fruits.....		66,161
Honey.....		6,455
Hides.....	1,099,763	78,413
Wool.....	351,418	38,681
Other.....		541,846
Total merchandise		24,793,785
Total exports, specie		157,706
Total.....		24,951,441

Exports for year ending June 30, 1902:

Domestic merchandise—	
To foreign countries	\$54,365
To United States	24,700,557
Foreign merchandise—	
To foreign countries	9,182
To United States	29,631
Total.....	24,793,785
Specie.....	157,706

14 REPORT OF GOVERNOR OF THE TERRITORY OF HAWAII.

Domestic exports to the United States for year ending June 30, 1902.

	Quantity.	Value.
	<i>Pounds.</i>	
Sugar, raw	720,553,357	\$23,920,113
Coffee	1,082,794	114,290
Rice	340,600	15,347
Fresh fruits		65,732
Honey		5,847
Hides	1,099,763	78,413
Wool	351,418	38,681
Other		462,134
Total		24,700,557

Domestic exports to foreign countries for year ending June 30, 1902.

	Quantity.	Value.
	<i>Pounds.</i>	
Coffee	127,304	\$12,354
Rice	1,700	75
Fresh fruits		429
Honey		608
Other		40,899
Total		54,365

Total number of vessels entering and clearing in the district of Hawaii during the fiscal year ending June 30, 1901.

Ports.	Coastwise. ^a				Foreign.			
	Entered.		Cleared.		Entered.		Cleared.	
	Num-ber.	Tons.	Num-ber.	Tons.	Num-ber.	Tons.	Num-ber.	Tons.
Honolulu	349	466,468	414	525,001	210	386,813	126	305,398
Kahului	44	23,338	72	46,663	21	19,155	5	5,977
Mahukona	26	8,803	27	9,102	5	2,564		
Hilo	57	50,780	57	50,780				
Total	476	549,389	570	631,546	236	408,532	131	311,375

	Entered.		Cleared.	
	Number.	Tons.	Number.	Tons.
Coastwise ^a	476	549,389	570	631,546
Foreign	236	408,532	131	311,375
Total	712	957,921	701	942,921

^a The figures under the title "Coastwise" refer to American vessels doing business between Hawaiian and mainland ports, but do not include vessels engaged in traffic among the Hawaiian Islands.

Total number of vessels entering and clearing in the district of Hawaii during the fiscal year ending June 30, 1902.

Ports.	Coastwise. ^a				Foreign.			
	Entered.		Cleared.		Entered.		Cleared.	
	Num-ber.	Tons.	Num-ber.	Tons.	Num-ber.	Tons.	Num-ber.	Tons.
Honolulu	300	454,222	367	511,565	187	376,863	108	288,224
Kahului	9	5,059	25	21,658	16	17,212	8	10,152
Mahukona	13	4,267	16	6,102	4	2,622		
Lahaina	4	2,995	6	4,856	1	976		
Koloa	1	266	12	8,533	2	1,376		
Hilo	56	51,231	55	67,457				
Total	383	518,040	481	620,171	210	399,049	116	298,376

^a The figures under the title "Coastwise" refer to American vessels doing business between Hawaiian and mainland ports, but do not include vessels engaged in traffic among the Hawaiian Islands.

REPORT OF GOVERNOR OF THE TERRITORY OF HAWAII. 15

Total number of vessels entering and clearing in the district of Hawaii, etc.—Continued.

	Entered.		Cleared.	
	Number.	Tons.	Number.	Tons.
Coastwise ^a	383	518,040	481	620,171
Foreign.....	210	399,049	116	298,376
Total.....	593	917,089	597	918,547

^a The figures under the title "Coastwise" refer to American vessels doing business between Hawaiian and mainland ports, but do not include vessels engaged in traffic among the Hawaiian Islands.

Statement of vessels entering and clearing in the district of Hawaii, by nationality, for the fiscal year ending June 30, 1902.

Nationality.	Entered.		Cleared.	
	Number.	Tonnage.	Number.	Tonnage.
American.....	477	626,745	480	628,478
British.....	75	173,127	77	175,353
Japanese.....	29	99,875	29	99,880
German.....	7	11,165	5	7,154
Chilean.....	1	1,332	1	1,332
Austrian.....	1	2,070	1	2,070
Norwegian.....	2	2,186	2	2,551
French.....	1	589	1	589
Italian.....				1,140
Total.....	593	917,089	597	918,547

PUBLIC WORKS.

Statement of appropriations for the department of public works for the two years ending June 30, 1903; also amounts drawn from July 1, 1901, to June 30, 1902, and the balance on the latter date.

	Appropriations.	Drawn.	Balances.
Salaries and pay rolls.....	\$354,873.00	\$146,280.46	\$208,592.54
Current.....	2,303,325.00	679,651.62	1,623,673.38
Unpaid bills.....	66,241.60	60,895.48	5,346.12
Emergency fund, prior to July 1, 1901.....	26,500.00	5,700.39	17,029.19
		3,770.42	
Roads and bridges, Honolulu contracts.....	12,849.95	12,839.95	10.00
Road, Ninole homestead contract.....	1,420.00	500.00	920.00
Honolulu fire-department contract.....	12,905.00	8,360.00	4,545.00
	2,778,114.55	917,998.32	1,860,116.23
Road-tax special deposit:			
Road-tax balance, June 30, 1901.....			72,938.75
Receipts, June 30, 1901, to June 30, 1902.....			89,353.00
Total.....			162,291.75
Amount drawn by the several road boards.....			107,808.73
Balance to credit, July 1, 1902.....			54,483.02

Statement showing the total amount collected, and from what source, at the clerk's office of this department for the year ending June 30, 1902.

Rents.....	\$45,433.24
Sewerage.....	13,999.83
Land sales.....	36,459.00
Market.....	13,432.10
Garbage.....	4,970.50
Excavator.....	8,503.40
Weights and measures.....	235.25
	123,033.32
Government realizations, building permits, etc.....	5,654.43
Total.....	128,687.75

16 REPORT OF GOVERNOR OF THE TERRITORY OF HAWAII.

Statement of receipts by the bureaus of the department of public works from July 1, 1901, to June 30, 1902, and paid into the treasury.

Harbor master:	
Honolulu	\$91, 650. 71
Hilo.....	2, 664. 45
Powder magazine:	
Honolulu	2, 735. 60
Hilo.....	397. 40
Kerosene warehouse:	
Honolulu	5, 884. 44
Hilo.....	538. 22
Waterworks:	
Honolulu	97, 501. 15
Hilo.....	6, 292. 20
Laupahoehoe	157. 50
Kahului and Wailuku	4, 196. 75
Kaloa	275. 00
Roads, Honolulu	433. 37
Total	212, 726. 79

Expenditures on roads.

On account of road tax	\$107, 808. 73
On account of emergency appropriation.....	9, 470. 81
On account of current appropriation	270, 051. 54
Total	387, 331. 08

The number and kind of instruments for land and property required for road purposes executed in favor of the government for the year is as follows:

Deeds	51
Exchange deeds.....	16
Assignments of leases.....	5
Bill of sale.....	1
Agreements.....	4

In the matter of conveyances to the government the question arose whether the Federal Government or the Territory should be the grantee in such cases. After some discussion an opinion by Hon. Willis Van Devanter, United States Assistant Attorney-General, was adopted by the Interior Department to the effect that where such conveyances were for public purposes they should be made to the Territory, leaving it an unsettled question as to which government should be the grantee in other cases.

Summary of the employees of the department by nationality.

Hawaiian Americans	646	Italian American	1
Americans	117	French American	1
Portuguese Americans	38	Swedish American.....	1
Portuguese.....	254	Galicians.....	15
British Americans	17	Malay	1
British	2	Porto Ricans	2
German Americans	12	Filipino	1
German	1	Pole	1
Norwegian Americans	3	Gilbert Islander	1
Japanese.....	104		
Chinese.....	3	Total	1, 230
Spaniards.....	9		

Honolulu waterworks.

Appropriations.....	\$79,000.00
Expended	50,214.98
Balance	28,785.02
Collections.....	97,501.15
New privileges granted	352
Rates per annum for new privileges	\$9,438.00
Privileges discontinued	51
Loss in rates for privildges discontinued.....	\$839.00

The water supply for Honolulu is obtained partially from mountain streams, the water of which flows into the mains by gravity, and partially from artesian wells in the city, the water of which is pumped directly into the mains or into reservoirs, whence it flows into the mains by gravity. During the fiscal year it was necessary to pump 1,663,370,668 gallons, which required a consumption of 1,333 tons of coal.

The government conducts waterworks for supply of householders at Hilo and Laupahoehoe, island of Hawaii, at Kahului and Wailuku, island of Maui, and at Kaloa, island of Kauai. It is constructing waterworks for the supply of householders at Lahaina, island of Maui.

PUBLIC SURVEY.

The following data are taken from the annual report of the surveyor.

The record of field work shows between 17,000 and 18,000 acres surveyed and subdivided for settlement purposes; also surveys for new roads, settlement of boundaries, water resources, resurveys of public lands, and topographical work; also city surveys of lines for widening and extending streets, street grades, grades for water pipes and levels for fire plugs, car-track grades, lines for poles for electric wires, street plans and profiles showing position and elevation of car tracks, sewers, and sidewalks, reports on applications for building permits, and surveys of government and private properties required for street improvements.

OFFICE WORK.

The general work of the office has been carried on in quite the same lines as those prevailing in January, 1901.

The number of maps, tracings, plans, prints, and descriptions applied for by the various departments of the government have shown a marked increase during the past year. The field parties have required many tracings, copies of former surveys, and such data. The various public improvements have necessitated much work on our part in furnishing street lines, grades, descriptions of all lands taken for public purposes, and in most transactions reports were submitted giving areas, valuations, and recommendations. The correspondence shows that 411 letters were written, many of which were carefully considered reports on applications for the acquirement of government lands by purchase, lease, or otherwise.

Three hundred and ninety-eight grants have been platted in on the registered maps, and there now remains but the adding of a limited number of government deeds to bring this important work up to date.

Block tracings of the principal portion of Honolulu, giving the frontages, areas, etc., have been furnished to the tax assessor's office. This involved a vast amount of computations, as the numerous holdings are mostly very irregular in shape. Total area, 1,450 acres.

The large map of the island of Hawaii, compiled from the numerous maps and records on file in this office, has been completed. This valuable map is drawn to a

18 REPORT OF GOVERNOR OF THE TERRITORY OF HAWAII.

scale of 10,000 feet to the inch, and in addition to the usual information represented are contour lines showing approximate heights at intervals of 300 feet. The new map of Oahu, now under compilation, is nearly completed.

Number of new maps, tracings, and charts registered and filed	143
Number of copies of surveys furnished	187
Number of field books registered and filed	34
Number of tracings furnished (not including tracings and sketch plans attached to descriptions of surveys furnished)	175
Number of blue prints furnished	580
Number of reports and official letters	411

The foregoing gives but a general idea of the routine work of the office, as there is much done in the way of checking old surveys and giving information on a great variety of matters relating to private and government lands not referred to in the above items.

As a general rule, all matters where land boundaries are in dispute require much time in careful study.

HYDROGRAPHIC SURVEYS.

The U. S. S. *Albatross*, Capt. Chauncey Thomas, has been engaged in these waters during the months of April, May, and June, making soundings and dredgings that will be of great interest.

We have endeavored to assist in this work by furnishing copies of such maps and tracings of all the islands as we have at hand. Captain Thomas will furnish this office with the results of the survey at an early date, which courtesy will be highly appreciated.

Some work has been done to bring the chart of Honolulu Harbor up to date.

A thorough survey of Kapua entrance and approaches at Waikiki, south coast of Oahu, has been completed to facilitate the landing of the Pacific cable.

TIME.

The local standard and Greenwich time have been obtained from transit observations and the steam-whistle signal given as usual. It is to be hoped that we may in the near future secure a standard time ball apparatus.

Honolulu is now an important shipping point, and needs this improved time signal for navigators, as well as for others.

TRANSFER OF PROPERTY TO THE UNITED STATES COAST AND GEODETIC SURVEY.

On March 8, acting under instructions received from the Superintendent of the United States Coast and Geodetic Survey, Prof. W. D. Alexander made a formal request for such property and records as were considered to properly belong to a coast and geodetic survey.

In compliance with this request we have transferred the 12-inch transit, which has been used solely for triangulation purposes, and something like ninety volumes of reports, scientific works, mathematical tables, etc.

It was found impracticable to transfer any of our own records for the reason that the geodetic and land surveys that have been made here in the past are so inextricably intermingled that they can not be separated.

PLANS FOR FUTURE WORK.

The work for the coming year will be determined by the necessities of the case. The homestead surveys will be pushed rapidly and the city work will be advanced as opportunity offers.

Forest reservation line to be established along the 2,100-foot elevation in South Hilo and a survey and map made of the Makai section, showing topographical and other features in order that the land commissioner may offer further clearing permits to agriculture.

Five thousand acres of Kioloakoa, Puumakaa, and Puueo, in Kau, Hawaii, is to be set apart for a forest reservation and the remainder laid out into homesteads.

Statement of expenditures and receipts of the survey department.

EXPENDITURES.

	Appropriation.	Drawn.	Balance.
Salary of surveyor, meteorologist, and assistants.....	\$23,000.00	\$11,500.00	\$11,500.00
Expenses of survey and office work.....	48,000.00	21,096.98	26,903.02
Publishing maps.....	1,600.00	688.96	911.04
Meteorology.....	750.00	214.50	535.50
Total.....	73,350.00	33,500.44	39,849.56

RECEIPTS.

Published maps.....	\$77.50
Tracings.....	57.50
Blue prints.....	53.50
Rating chronometers.....	17.50
Data furnished.....	32.00
Total.....	238.00

[Extracts from the report of Curtis J. Lyons, esq., Territorial meteorologist.]

Records of daily rainfall have been received from about eighty stations, said records being made by voluntary observers, and the monthly totals published in Honolulu papers about the 15th of the succeeding month. About one half of the rain gauges required have been furnished by the Government, the other half being private property. Copper gauges are in a great measure replacing the older tin ones, which are not lasting, and fresh measuring glasses are furnished in case of breakage.

Six observers are furnished with maximum and minimum thermometers, and one with a mercurial barometer at Pepeekeo, Hilo. These observers report daily temperature, also direction of the wind and brief notes of the weather. Three observers also make daily observations of humidity and report thereon.

The observations at the central office, at 1508 Alexander street, have been kept up and somewhat enlarged in scope, involving about thirty entries a day. This closes the nineteenth year of the series. The publication of these observations, as well as those at the outstations in permanent form, begins with the year 1892 and ends with the year 1898, this last having been published within the last twelve months. Every month a summary, including the averages and changes and comparison with normal meteorological conditions, is published in the local papers. This includes also the average temperature and other items from outside stations, especially the percentage of district rainfall as compared with the normal.

A pamphlet is now in press giving the entire monthly rainfall of each station from the beginning of observation when such beginning was before 1897, and coming down to the close of 1900. In some cases this covers a period of twenty or more years. The table gives the normal average for each month of the year and the average yearly rainfall for each station. As this table covers the entire group, it is hoped that it will be found very useful for the agricultural interests of the Territory.

The United States Monthly Weather Review, the organ of the Weather Bureau at Washington, publishes very full reports which are forwarded from here, and the editor has shown an especial interest in this station. The Hydrographic Office also receives reports from this office. Our published annual reports are sent to the leading observatories and weather offices abroad, and the publications received in exchange have built up an extensive library for this office, which should be well cared for, for the benefit of future students.

TIDES.

The automatic tide gauge in Honolulu Harbor is under the charge of this office, and is in continuous service, this being one of the important stations of the world. Duplicates of the records have been sent to Washington, up to April of this year, to the tidal division of the United States Coast and Geodetic Survey. The apparatus has been thoroughly overhauled of late and is in good order, but needs a new shelter house. Seismic waves are a special object of record, and a very interesting series has lately occurred. The mean sea level is also an especial matter of study and has shown some remarkable variations in the last twelve months. The rising and falling of the water in our artesian-well subterranean reservoir is also noted.

The following brief statement of the organization and methods of the public survey department was prepared also by Mr. Lyons:

The Hawaiian Government survey was primarily and is still mainly a cadastral survey. Its initial object was to locate on general maps all titles that had previous to its inception been issued by the Government, and thereby account for all the land in the then Kingdom, and enable the Government to act intelligently in any disposal it might make of the remainder. And also to survey in detail all Government boundaries and all lands subdivided for sale or lease by the Government, and to assist in settling traditional but unsurveyed boundaries of lands, both Government and private. The special need of such a survey was very much increased by the fact that all the magnetic surveys by which title had been given were simply detached independent surveys, unconnected with any general system or common reference points.

The authority for it was derived from the law which directed the minister of the interior to make all necessary surveys of Government lands, and from the appropriations which have from time to time been made by the legislature.

As a matter of wise public policy there has been added to the work of the survey that of making all maps needed for public purposes, also that of making exact measurements and records needed for public use. The experience of the country has abundantly justified this policy. Of such exact measurement work may be mentioned tide observations, time observations for public standard, meteorological, magnetic, topographic, and hydrographic.

As is necessary in all reliable general surveys the work is based on a general triangulation, which serves as a foundation for all kinds of surveys which are or may yet be needed, including hydrographic, topographical, and geological. This triangulation was made in thorough accordance with the methods and principles of the United States Coast and Geodetic Survey.

The system of land division in the islands is complicated, and from the nature of the country irregular, but it has been scientifically dealt with, and any attempt to revolutionize the survey system would be disastrous. The triangulation points serve the same purpose to the location of lands that the meridians and parallels do on the United States land system.

As the land was originally minutely subdivided by the Hawaiians themselves, and as the ownership was continued when Government titles were given, a great many maps have been needed, considering the size of the country.

The survey was begun in 1871, under Prof. W. D. Alexander as surveyor-general, Ferdinand W. Hutchison being minister of the interior under Kamehameha V. The number of skilled employees has varied from three to a dozen. It has been necessary for a portion of them to understand the Hawaiian language, partly for the sake of understanding the land-commission records, most of the surveys and awards being in Hawaiian, and partly for communicating with Hawaiians who consult the office. The survey has been a general information office for the public on all matters connected with lands, also for scientists, naval officers, and others from abroad. In the development of the country it has fulfilled an important part.

The courts of law and the legal fraternity make constant use of the maps and records of the survey. The poorest Hawaiian can come and find, free of cost, the probable location or the existence or the nonexistence of such titles as he may be concerned in. The peculiar conditions of the country have made such matters peculiarly dependent upon maps, largely from absence in a large proportion of cases of boundary fences.

All the surveying connected with the development of a city like Honolulu, including leveling and grading, has been done by this office. Preliminary surveys of most of the harbors have been made. Many of these were published by the United States Hydrographic Office.

The unit of measurement adopted is the foot, as being adapted to public needs, and the standard of direction the true meridian. As the old surveys were in chains, and the bearings simply local magnetic in a country where local attraction was prevalent everywhere, the work of reduction has been great.

As there are over 2,000 maps on file in the office, and all the documentary matter connected with them, it will be seen that the office is one of great importance to the Territory. Where an office has been carried on in the manner indicated it becomes almost impossible to divide its records among new organizations, and a policy of copying would seem better than that of absolute removal of any records.

In the matter of ownership of lands the bureau has confined itself mainly to original titles, i. e., to the location and identification of land commission awards and Government grants. No attempt has been made to keep track of transfers and division of private lands, except to procure and place on file copies of city tracts placed

on the market by real estate dealers. This work, if undertaken, should have a special supplementary division.

The triangulation of the group is practically completed and theoretically handed over to the Coast and Geodetic Survey. But it should be far more perfect in many respects, especially as to records and monuments. The Territorial survey needs all these for its own purposes.

The general maps need more complete compiling and very many need renewal owing to so much consultation.

The boundaries of Government lands need detailed delimiting surveys and descriptions. There are many of these which, while laid down on the maps from such data as are at hand, still are not definitely marked on the ground, and are not accurately described by bearings and distances of the lines.

PUBLIC LANDS.

There is an increasing demand for small holdings and the work of the commission of public lands promises to increase steadily if funds are available.

The following data are taken from the annual report of Mr. Edmund S. Boyd, commissioner of public lands.

Land transactions for the year ending June 30, 1902, showing lands taken up under the various systems of the land act of 1895 (other than cash sales and Olaa purchases under special conditions of Part IX).

Land districts.	Right of purchase lease.			Homestead.	
	Number.	Acres.	Value.	Number.	Acres.
First—Hilo and Puna	72	4,588.40	\$26,238.18	.....	.....
Second—Hamakua and Kohala	13	599.73	9,342.57	.....	.....
Third—Kona and Kau	11	1,319.31	2,375.39	.....	.....
Fourth—Maui and Molokai	1	92.46	924.60	.....	.....
Fifth—Oahu				33	136.29
Total	97	6,599.90	38,880.74	33	136.29

Under the homestead lease system no appraisements are made. Rights are inalienable.

CASH SALES.

Lot 27, Part C, Olaa, Puna, Hawaii, 4.20 acres	\$315
Waiohina, Kau, Hawaii, 3.35 acres	525

The above shows transactions under cash sales for the year.

Lot 27, Part C, Olaa, was an undesirable remnant bounded on all sides by private lands, and of no good to hold. It was decided to be sold to the highest bidder and brought in \$75 an acre.

The land in Waiohina was sold for church purposes to the Anglican Church of Hawaii.

LAND LICENSES.

Licensee, Henry Waterhouse & Co., trustee for J. H. and Phoebe K. Raymond; location, Polipoli Spring, Wailuku, Maui; term, twenty years; annual rental, \$200.

This license was granted to the above parties for the purpose of conducting the surplus water from Polipoli Spring, which is 6,000 feet above sea level, by means of pipes, to more advantageous points for supplying their cattle with water, thus avoiding the necessity for their traveling long distances and to such a great height to the same.

They to construct and maintain watering troughs on public lands along its line. This license was also granted in the interest of the development of grazing and agriculture and the enhancing of the values of the public lands of Kamaole, Kahikinui, and Kanaio.

22 REPORT OF GOVERNOR OF THE TERRITORY OF HAWAII.

General leases.

Date of lease.	Lessee.	Location.	Area.	Term.	Annual rental.
				Years.	
Sept. 24, 1901 ^a	Samuel Kauhane.....	Manuka, Kau, Hawaii.....	22,800.00	10	\$75
Dec. 21, 1901...	Chin Wo Co.....	Palama-kai, Honolulu, Oahu...	17.80	5	285
Nov. 30, 1901...	Waianae Co.....	Lualualei, Waianae, Oahu (cane land).	3,332.00	5	9,000
Feb. 26, 1902...	Onomea Sugar Co.....	Kaapoko, Hilo, Hawaii.....	160.00	5	520
Do.....	H. P. Baldwin.....	Koolau, Maui.....	12,500.00	21	1,100
Do.....	do.....	do.....	6,500.00	21	4,000
May 24, 1902...	R. R. Hind.....	Kahel, Kohala, Hawaii (cane land).	455.00	5	900
Do.....	do.....	do.....	86.00	5	100
Do.....	do.....	Opihipau, Kohala, Hawaii (grazing land).	449.00	5	314
Do.....	do.....	Hukiaa, Kohala, Hawaii (grazing land).	380.00	5	266
Do.....	Hutchinson Sugar Plantation Co.....	Kioloakaa-Pumakaa, Kau, Hawaii.	5,000.00	21	200
Do.....	Pepeekeo Sugar Co.....	Kaupakuea, Hilo, Hawaii (cane land).	210.00	5	600
June 28, 1902 ^a	A. C. Dowsett.....	Wallau, Molokai.....	2,000.00	21	100

^aThis land was leased for grazing purposes. The area designated may mislead such persons that are not familiar with the land of Manuka, and to criticise the action of this Department in leasing such a large area for such an "inadequate" or, more properly saying, insignificant figure. To justify its action, it is well to explain the situation fully, viz: The land of Manuka is situated in the district of South Kona, and its boundary on the west is the dividing line between the districts of South Kona and Kau, and wholly covered with a-a rock, with the exception of about 500 acres of fairly good grazing land. In the disintegrated lava there has in recent years sprung up a very dense forest of Ohia (an indigenous tree), which covers about 2,000 acres, and even in time cover a greater area.

This 2,000 acres of forest land is impracticable for any purpose, even grazing, as the rugged character of the a-a rock prevalent in the Kona district is dangerous to life and limbs of any animal kind except goats. The rest is simply barren lava waste devoid of any vegetation, arid and waterless. Consequently, it simmers down to the fact that the lessee has only practically 500 acres of land from which he can realize anything. The lease also requires the lessee to preserve the forest and to reforest same in places where same appears in state of diminution, and to keep land where practicable clear of lantana.

^bThis land was leased in two tracts, namely: (1) All that forest land extending from the eastern boundary of the Ahupuaa of Honomanu to the western brink of the gulch of Wailua-iki and from ocean to boundary of Haiku above. (2) All that forest land extending from the western brink of Wailua-iki gulch to the western brink of the gulch between the lands of Kapaula and Puakea (or Paakea) and extending from the ocean to boundary of Haiku above. Both are situate on the northeastern side of the island of Maui.

These leases were sold at public auction under the following conditions as to forest, etc.: Lessee is prohibited from cutting or allowing to be cut any forest trees, except for fencing and domestic purposes, to be used on premises or for development, storage and transportation of water, to replant forest where it appears in state of diminution. It also prohibits the running of cattle on the premises, requires the extermination of wild cattle; lessee to build and maintain a substantial fence along the upper side of the old Government road and to prevent stock from trespassing on the land; and not to interfere with vested interests in water on leased premises; to furnish homesteaders with water for domestic and irrigation purposes at convenient points. These are the principal conditions of the leases.

Main purpose of course, is for water, an article very much sought after by the vast sugar enterprises to the west of this island.

This land, though of an extremely rugged and almost inaccessible character and impossible of cultivation on this account, holds a large quantity of water which goes to the sea, benefiting nothing and nobody, and the land has never to my knowledge brought any revenue to the Government.

Under these conditions I think the Government is very fortunate in deriving a revenue from these lands; but this is not all. By these leases the Government is insured against the destruction of the forest by the inroad of cattle, or from fires.

^cLeased under forest conditions. To fence (repair and maintain same) the whole area, to prevent the inroad of cattle, to preserve and increase the forest. These lands have no natural water supply, depending mostly on rain for moisture. What water the lessees can conserve and impound is of course appurtenant thereto.

Receipts public lands office from January 1 to June 30, 1901.

LAND REVENUE.

Rents:

General leases.....	\$42,977.54
Right of purchase leases.....	2,750.31
Olaa leases.....	240.31
Kaimu leases.....	3.75
Miscellaneous.....	498.80

Interest:

Homesteads.....	291.50
Special agreements.....	2,870.94
Cash freeholds.....	15.85

REPORT OF GOVERNOR OF THE TERRITORY OF HAWAII. 23

Receipts public lands office from January 1 to June 30, 1901—Continued.

LAND REVENUE—continued.

Interest—Continued.

Olaa agreements.....	\$16. 65
Fees.....	392. 00
Total.....	50, 057. 65

LAND SALES.

Purchase, right of purchase leases.....	\$20, 512. 12
Special agreements.....	6, 626. 41
Homestead.....	2, 369. 20
Olaa lots.....	1, 104. 45
Kaimu.....	25. 00
Cash sales.....	525. 00
Total.....	31, 162. 18
Land revenue.....	50, 057. 65
Land sales.....	31, 162. 18
Total.....	81, 219. 83

The above shows receipts of this commission for the six months ending June 30, 1901, which have not as yet been reported. A good showing is made especially in land sales. You will notice by comparing this statement with the one hereunder that the amount is comparatively greater than for the year ending June 30, 1902. This is occasioned by the purchase price being paid in on agreements falling due during this period.

Receipts public lands office during the year ending June 30, 1902.

LAND REVENUE.

Rents:

General leases.....	\$95, 577. 93
Right of purchase leases.....	5, 266. 20
Olaa leases.....	193. 23
Puukapu leases.....	21. 00
Miscellaneous.....	1, 233. 60

Interest:

Homestead.....	355. 34
Special agreements.....	1, 087. 63
Olaa agreements.....	61. 00
Fees.....	65. 50

Total.....	103, 886. 69
------------	--------------

LAND SALES.

Purchase, right of purchase leases.....	\$9, 518. 07
Special agreements.....	1, 902. 14
Homesteads.....	1, 288. 88
Olaa lots.....	12. 40
Cash sales.....	315. 00

13, 036. 49

Land revenue.....	103, 886. 69
Land sales.....	13, 036. 49

116, 923. 18

The above shows an increase in the receipts of this commission for the past year, and has fulfilled all predictions made in our annual report of 1900.

24 REPORT OF GOVERNOR OF THE TERRITORY OF HAWAII.

Expenditures of the commission.

	Appropriation.	Drawn.	Balance.
Salary of commissioner.....	\$7,200.00	\$3,600.00	\$3,600.00
Salary of secretary, clerks, subagents, rangers, etc.....	18,960.00	8,920.00	10,040.00
Incidentals.....	5,250.00	3,360.10	1,889.90
Preliminary roads and trails.....	7,000.00		7,000.00
Expenses filing boundary certificates.....	300.00	70.60	229.40
Total	38,710.00	15,950.70	22,759.30

The above table shows a very small balance in our appropriation for incidentals, and amounts to less than the pro rata for the year.

Expenses for printing and advertising have been quite heavy, as new blanks had to be printed to conform to section 73 of the organic act. Activity in land transactions also occasioned a heavy expenditure for advertisements, and can not be avoided unless we curtail land transactions; to do so would show a lack of progressiveness.

Nothing has been spent on preliminary roads and trails. The difficulty which this office has to meet in dealing with this question has yet to be solved.

It is a criticism sometimes made on work of this office that lands have been laid out in advance of the construction of roads, whereby smaller value attached to the land itself and the settler was hampered in the operations for the lack of suitable roads, both of which statements are undeniably correct.

On the other hand, if such opening of lands were held back until suitable roads were completed it would cause an indefinite delay in land transactions, and the results so far achieved would not now be in evidence.

This appropriation can only be expended as designated by the item; that is to say, for "Preliminary roads and trails." We are about to construct some very necessary work under this appropriation during the coming year.

The problem which this office has to face is, whether to delay indefinitely the opening of public lands until good roads can be completed or to meet the demand for lands by rougher immediate means of access, with the expectation that improved roads will follow the settlement of lands. I say supply the demand as an initiative and the rest will shape itself.

SURVEY WORK.

This work is still under the supervision of the Government survey office.

A total area of about 8,000 acres and averaging 10 to 50 acres a lot has been surveyed and subdivided during the year.

Statement of land patents issued.

	Number issued.	Acreage.	Consideration.
Homestead leases.....	8	135.23	\$1,316.95
Right of purchase leases.....	54	2,878.09	15,454.69
Time payment.....	25	977.64	13,029.45
Cash freehold.....	4	333.70	1,271.55
Cash purchase.....	5	322.57	36,011.00
Land exchange.....	16	1,047.56	1,913.00
Puukapu lots.....	1	16.47	41.15
Total	113	5,711.26	69,037.79

Land patents issued on land-commission awards:

Number issued.....	15
Acreage.....	27,838.26
Commutation.....	\$79.98

From the present outlook and from the applications on file, the number of land patents to be issued on confirmation of land-commission awards during the coming year will far exceed in number those of last year.

AGRICULTURE.

At the Government nursery the following forage plants have been cultivated: Alfalfa, red clover, crimson clover, teosinte, sorghum, buffalo grass, Kentucky blue grass, maize, and penicillaria, records of which are kept by which information is gained as to the value of these plants for cultivation here.

In the same grounds experiments have been made in the cultivation of Hawaiian and Samoan taro and yams.

NEW INDUSTRIES.

Sisal.—Through the agency of the Territorial bureau of agriculture and forestry the cultivation of sisal, *Agave sisalana*, a fiber plant, was taken up several years ago, and at the present time there is one plantation with several hundred acres of sisal under cultivation on the island of Oahu, another of considerable area has just been started on the island of Molokai, and a third is about to be begun on the island of Kauai. The Oahu plantation is nearly ready to take off its first crop and is putting up its machinery.

As the sisal plant will thrive in rocky and comparatively barren soils, its successful cultivation will be of importance in utilizing such lands as well as in adding to the products of the Territory and furnishing a new demand for labor.

It is to be hoped that success in the production of fiber suitable for cordage will promptly lead up to the establishment of local factories for its manufacture.

Castor oil (Ricinus communis).—This plant has grown wild for many years in different parts of the islands with great luxuriance. It is a perennial in this climate.

Mr. Koelling has 80 acres under cultivation on the island of Oahu and feels encouraged to double the extent of his plantation. He estimates a yield of 2 tons of beans per acre of his best land and 1½ tons from inferior land. The percentage of oil by hydraulic pressure is 45 per cent and by the benzine process 55 per cent. This would give a possible 275 gallons of oil per acre, worth in San Francisco \$261.25 for No. 1 grade and \$220 for No. 2 grade.

The plants are set 4 feet apart and are cultivated by hoeing and horse plowing.

Vanilla.—Experiments have been made from time to time in the cultivation of the vanilla bean and its preparation for the market with little other result than the demonstration of the suitability of our soil and climate for its production. During the past year a small plantation has been started in South Kona, island of Hawaii, for its cultivation.

Tobacco.—Although tobacco has been cultivated in these islands for many years in a desultory way the product has never been properly cured and the question of the suitability of soil and climate for the production of fine grades is still unsettled. The fact, however, that tobacco grows wild in many parts of the group would seem to be encouraging.

Mr. Smith, in charge of the Hawaii experiment station, reports that he is planning to experiment with Sumatra tobacco at the station.

PINEAPPLE CULTIVATION.

The business of raising and canning pineapples is a growing one and promises considerable development. In its several varieties the pineapple has a wide range of soil and elevation. At present there is but one cannery, which has put up the past year 6,200 cases, which have been sent to the mainland.

SUGAR.

The following information in relation to the use of fertilizers in the cultivation of sugar cane, the yield of sugar per acre, and the total yield for the past seven years, the yield per acre by islands in the year 1901, and the comparative statement of the yield of irrigated and unirrigated plantations for the past seven years were furnished by Mr. C. F. Eckart, the director of the experiment station of the Hawaiian Sugar Planters Association:

During the year ending September 30, 1901, approximately 25,000 tons of mixed fertilizers were applied to Hawaiian sugar lands. In addition to these some 15,000 tons of special fertilizers, such as tankage, fish scrap, bone meal, nitrate of soda, and the various forms of lime were also used, making the average fertilization with bought material, per acre, about 1,000 pounds. The waste products of the sugar mill, such as mud-press cakes, molasses, and furnace ash, are largely conserved and applied as manures, along with the accumulated refuse from the stock pens, on many plantations. The amount of the latter material, used in this way is not definitely known, but annually reaches into thousands of tons.

The question of fertilization has been closely studied by the managers of the various plantations, and owing to the diversified conditions as regards climate and soil, practices vary materially respecting times and methods of applying manures on the different estates. The forms in which the separate fertilizing elements are applied is influenced by a consideration of the rainfall and elevation of lands to be treated, while the proportions of the ingredients to be used are measured by soil deficiencies and the requirements of cane.

Exhaustive chemical analyses of Hawaiian soils have been made and the demands made by the crop upon the plant foods have been carefully investigated. An idea as to the manner in which fertilizing formulas vary on the different islands may be gained from the following table:

	Potash.		Phosphoric acid.		Nitrogen.	
	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
Maul	4.13	17.24	5.10	14.26	5.04	9.70
Kauai	4.89	10.10	5.68	9.39	6.66	9.91
Hawaii	4.03	22.54	5.29	14.61	3.25	10.42
Oahu	8.50	14.66	7.01	15	4.70	7.10

While the judicious application of suitable fertilizers to the sugar lands of the islands has played an important rôle in the phenomenal yields of many plantations, rational cultivation, particularly on those dependent upon rainfall, has added much to the annual output. Unfortunately the extent to which cultivation may be practiced is limited on many plantations by an inadequate supply of labor.

The islands are particularly free from the serious insect pests common in most sugar-producing countries, and steps have been taken, by establishing a control over cane importations, to lessen the danger of introducing such evils from other countries. The most injurious pest with which the planter has to combat is the cane-borer, *Sphenophorus obscurus*, although recently the effects of an insect termed "leaf-hopper," *Fulgoridæ*, have been somewhat pronounced on several estates.

Sugar yields of the Hawaiian Islands.

Year.	Acres.	Tons of sugar.	Yield per acre.
			<i>Pounds.</i>
1895.....	47,399½	153,419½	6,472
1896.....	55,729	227,093	8,143
1897.....	53,823½	251,126	9,331
1898.....	55,235½	229,414	8,306
1899.....	60,308	282,807	9,378
1900.....	66,773	289,544	8,672
1901.....	78,618½	359,133	9,136

BY ISLANDS FOR 1901.

Island.	Acres.	Tons of sugar.	Yield per acre.
			<i>Pounds.</i>
Oahu.....	13,562	98,897	14,584
Kauai.....	12,896	67,205	10,423
Maul.....	11,400	58,349	10,237
Hawaii.....	40,760	134,682	6,608

YIELDS OF THE IRRIGATED PLANTATIONS.

Year.	Acres.	Tons of sugar.	Yield per acre.
			<i>Pounds.</i>
1895.....	23,454	89,943½	7,669
1896.....	25,950	117,449	9,032
1897.....	23,101	117,306	10,151
1898.....	24,507	137,595	11,269
1899.....	27,380	166,425	12,157
1900.....	27,090½	166,002	12,254
1901.....	34,740½	215,189	12,388

YIELDS OF RAINFALL PLANTATIONS.

1895.....	23,945	63,476	5,310
1896.....	29,779	109,644	7,363
1897.....	30,724½	133,820	8,710
1898.....	30,728½	91,692½	5,934
1899.....	32,928	116,382	7,068
1900.....	39,682½	124,257	6,262
1901.....	43,878	143,943	6,561

The following statement of averages in relation to sugar production were estimated from the reports of three of the largest plantations on the island of Oahu. The items of total cost of irrigation per acre, of irrigation per ton of sugar, of cultivation per acre, and cultivation per ton of sugar were taken from the report of the Ewa plantation alone, other reports not furnishing figures on these items:

Statement of averages of several plantations on the island of Oahu for crop of 1901.

Average yield per acre in tons of sugar.....	8.44
Average tons of cane per ton of sugar.....	8.62
Average pounds of sugar per ton of cane.....	232.39
Average cost of production of sugar per ton.....	\$41.13
Average cost of irrigation per acre.....	\$35.72
Average cost of irrigation per ton of sugar.....	\$3.30
Average cost of cultivation per acre.....	\$265.01
Average cost of cultivation per ton of sugar.....	\$24.28
Average cost, man and containers, per ton of sugar.....	\$4.38

The average cost of production of a ton of sugar on Ewa plantation alone was \$34.94, divided as follows:

On account of labor.....	\$18.45
Other expenses.....	16.49

Distribution of seeds.

Through the courtesy of the Hawaiian Delegate to Congress a large variety of vegetable seeds have been received from the Department of Agriculture and have been distributed throughout the Territory. Under the Territorial appropriation for the importation of seeds a variety of seeds of forage plants, seed potatoes, and seed of many varieties of forest trees have been procured and distributed.

Through the kindness of the Japanese consul at Honolulu several bags of Kinshu rice seed have been procured and distributed to rice planters. As this variety grows on dry land, and under favorable circumstances is reported to yield from 100 to 400 per cent more than any other variety, its introduction may be of considerable public importance.

AGRICULTURAL EDUCATION.

A fine beginning in scientific instruction in agriculture has been made at the Kamehameha school for boys. Mr. Kraus, the teacher, is carrying out a practical system illustrated by actual work in the field and garden. The garden produce for the three Kamehameha schools is raised by the pupils in the course of agriculture, who also conduct a dairy under the same instructor, the product of which is consumed by the schools.

At the Hilo Boarding School (private) and the Lahainaluna Seminary (government) there are courses in agriculture, illustrated by field work of the pupils. The Normal School in Honolulu has a course in agriculture, and the study of this subject is being introduced as rapidly as opportunities permit in the public day schools of the Territory.

FARMERS' INSTITUTE.

In January, 1902, the first Farmers' Institute of the Territory was organized at the Wahiawa colony, Oahu, with a good membership.

FERTILIZERS.

There are two companies in Honolulu manufacturing fertilizers mainly for use in the Territory. The following information is furnished by these companies:

The Pacific Guano and Fertilizer Company manufactures high grade commercial fertilizers, acid phosphate, sulphuric acid, and phosphoric acid.

The factory is modern in all respects and has in use the latest and most improved machinery.

The plant consists of two sulphuric acid works with a capacity of 2,500 tons per annum each; acid phosphate factory, capacity 10,000 tons, and fertilizer works, with an annual capacity of 15,000 to 20,000 tons.

It operates the guano fields on Laysan Island and imports from there annually from 3,000 to 6,000 tons of guano; besides this there are used every year about 2,000 tons of Florida phosphate.

The Hawaiian Fertilizer Company, Limited, sell annually about 4,000 tons of nitrate of soda, imported from Chile, to be used as a fertilizer in its raw state. Before leaving the factory it is ground and screened.

Sulphate of potash, nitrate of potash, and kainit are imported from Germany. Sulphate of ammonia and double superphosphate are procured in England, which is the only country that manufactures sulphate of ammonia on a large scale. It is a by-product of coal-gas works and is the most expensive material used as a fertilizer, costing in England about \$60 a ton. Fish guano comes from Alaska, and the packing houses of the Northwest and the Middle West supply dried blood, tankage, and bone meal.

All the fertilizers imported are raw materials, none of which are applied in the raw state with the exception of nitrate of soda. The average high grade cane fertilizer contains as many as five or six different raw materials.

The sales of this company last year were 17,840 tons, worth about \$779,596.11.

LIVE STOCK.

During the year the Hawaiian Live Stock and Breeders' Association has been organized for the improvement of live stock breeding, the introduction of new pasture grasses, and the preserving and restoring of such forest growth as may be beneficial to grazing lands.

Such an organization has been much needed in the past. It is likely to have a very beneficial influence toward the improvement of ranch management in the Territory, which heretofore, with few exceptions, has been conspicuously without system or any application of scientific principles.

Consumption of Hawaiian cattle and sheep in Honolulu.

	Number.	Value.	Weight.	Average weight.	Average price.
			<i>Pounds.</i>	<i>Pounds.</i>	
Cattle	4,998	\$225,399.75	2,352,841	422.7	\$40.10
Calves	588	9,672.51			16.45
Sheep	8,352	26,043.93	279,315	33.44	3.12

	<i>Pounds.</i>
Largest average weight of cattle from any ranch	584
Smallest average weight of cattle from any ranch	282
Largest average weight of sheep from any ranch	38
Smallest average weight of sheep from any ranch	29

Meats brought into the Territory (approximate).

	Quantity.	Value.
	<i>Pounds.</i>	
Beef	1,170,153	\$104,303.45
Corned beef		1,896.27
Venison (50 carcasses)	3,372	2,409.92
Veal	169,366	17,991.07
Lamb and mutton	320,260	31,536.96
Turkeys, chickens, etc.	116,824	19,331.16

NOTE.—The weights mentioned in the foregoing tables are for dressed meats.

FORESTRY.

Many kinds of deciduous trees of northern latitudes have been tried in different parts of the Territory and generally without success at low

elevations. It is probable that some varieties will do well at higher elevations.

A somewhat similar experience has been had with cone-bearing trees. A few kinds, however, have grown luxuriantly at low elevations where they have been protected and cultivated. Experiments will be made with this class of trees at the higher elevations where the climate approaches that of a more northern latitude. Ironwood (*Casurina equisetifolia*) is an exception to other trees of this class. Its range reaches from the seashore to elevations of several thousand feet; it thrives in all kinds of soils, with a preference for beach sand, and stands wind and drought, making a most desirable tree for forestry purposes.

There is a serious increase of insects injurious to trees all over the Territory. This is attributed by experts to the serious decrease of indigenous insectivorous birds, and to the circumstance that many of the forests have become so enfeebled by the presence of cattle and sheep, by which undergrowth is destroyed and the surface roots and lower trunks left exposed to sun and wind, that they have become an easy prey to insect depredations.

Extensive and destructive forest fires occurred in the district of Hamakua, island of Hawaii, during the months of July, August, and September. A long drought had rendered that locality peculiarly favorable to the spread of such accidental fires as might be started. The area burned over is estimated at about 30,000 acres, consisting of public and private lands.

The neighboring sugar planters, under an arrangement with the government, furnished a considerable portion of their laborers for an effort to check these fires. Several weeks were spent in this work and much was accomplished by cutting avenues through the forest and back firing and patrolling the country ahead of the line of fire. The fall rains fortunately began early and gradually extinguished the fires, which the plantation laborers, under the skillful management of Mr. Albert Horner, were substantially holding in check.

It is of extreme importance to this district that an area much larger than the part recently devastated should be forested. The removal of trees for fuel has been very great in years past, and the former streams and springs have been disastrously affected thereby.

On another part of Hawaii, the extreme northern part of the district of North Kona, a forest reservation was made on the 17th of June, 1902, of 74,000 acres, lying between Hualalai and Maunakea, and northwesterly to the sea. This reservation is of lava formation of various ages, and is partly covered with a thin forest growth; this is infested with wild sheep, which are rapidly destroying the undergrowth and threatening the existence of the forest itself. There are a few wild cattle, which are less injurious than the sheep. Both sheep and cattle will be destroyed or removed from the reservation.

It is the intention of the Territorial government to create similar reservations in other localities as opportunity permits.

The visit of Mr. Edward M. Griffith, assistant Forester in the Bureau of Forestry in December last, was of great value to the forestry interests of the Territory. During the few weeks of his visit he made a rapid inspection of the forests of the islands of Oahu, Maui, Molokai, and Hawaii, and thereafter formulated his observations and conclusions in a report which will, I believe, be of material assistance in the organization of a forestry system for the Territory.

I recommend that an assistant forester of the Bureau of Forestry be detailed to study our forests and meteorological conditions with reference to rainfall, water supply, and wind exposure of the several parts of the group and the necessity of foresting areas now exposed, and to assist the Territorial government in organizing a local forestry bureau.

Such a bureau should in a few years become self-supporting, and eventually contribute materially to the national revenues. The Hawaiian forests contain a number of beautiful hard woods suitable for furniture and the interior finishing of houses. The lumber of one of these, the koa (*acacia koa*), is in large demand and brings a high price.

Sandalwood is found in various parts of the group. The growth can easily be much increased, and such an enterprise would undoubtedly be most profitable, as the wood has a steady demand in China and is so valuable that it is sold by the pound.

The free distribution of plants by the government nursery reached the number of 32,341.

INSECTS.

INJURIOUS AND BENEFICIAL INSECTS.

The following list, dealing with the more important injurious and beneficial insects of the Hawaiian Islands, is furnished by Mr. R. C. L. Perkins, entomologist in the commission of agriculture and forestry. Many others of some importance in special cases or in restricted localities are omitted.

COLEOPTERA (Beetles).

Fam. CHRYSOMELIDÆ.—*Epitrix parrula*.—This species is well known on the mainland as the tobacco flea-beetle. In these it has proved very injurious locally to the eggplant, and is common in many parts of the forest on the poha (*Physalis*). Probably it has no natural enemies here, but is parasitized elsewhere by a Braconid fly. From its habit of riddling the leaves with small holes this small beetle is a serious pest in tobacco fields, and would have to be reckoned with in cultivating this plant on a large scale here, since it would probably be soon attracted to these fields. No doubt it is a comparatively recent introduction into these islands, since it was not found by Mr. Blackburn during his six years of entomological work.

Fam. BRUCHIDÆ.—*Bruchus chinensis* and another species.—Introduced in peas, beans, etc., the former at times injurious to these products.

Fam. CERAMBYCIDÆ (chiefly group Plagithmysides, peculiar to these islands).—*Long-horned beetles*.—The larvæ are the "mu" of unsound timber, especially noticeable in the koa (*Acacia koa*).

Of this family of beetles about 60 species are known to inhabit the islands, and the larvæ of all these are white grubs, which bore in the wood and bark of trees.

Nine of the species have been, no doubt, introduced, but all the rest are quite peculiar to the islands and are found only in the mountain forests. Of these peculiar species no less than 16 attack the koa (*Acacia koa*) only, 5 the mamane (*Sophora*), 6 the ohia (*Metrosiderus*), 4 the alani (*Pelea*), 4 the ahakea (*Bobea*), while the ohia-ha (*Eugenia*), the mamake (*Pipturus*), and the wauke (*Broussonetia*) have each two species peculiar to them; the naio (*Myoporum*), the pua (*Olea*), the koolea (*Myrsine*), the akala (*Rubus*), and some others but one each. In contrast to this class, two feed on many kinds of wood, whether in the form of wet, decaying logs or of still living trees. One of these, *Agosoma reflexum*, has been noted as attacking roots of cane and coffee in places previously covered with forest, the larvæ being, no doubt, driven to this by starvation, having remained in the earth after the removal of their natural food.

Of the numerous species of the former class which restrict their attacks, each one to a single kind of tree, the larvæ of only two appear to live in healthy, growing trees. One of these is peculiar to the wauke, the other to the bastard sandal. In

the higher forests of Hawaii, in certain localities, nearly every bastard sandal tree is perforated with the burrows of this insect, but the trees flower and seed freely and are certainly not destroyed unless after many years.

None of the many other species, including the 16 species peculiar to the koa, attack healthy trees, but when a tree is directly injured by fire or ax, or gnawed by goat, deer, or cattle, or indirectly, by the destruction of the underbrush, which exposes the roots to the heat of the sun and inducing a sickly condition, these beetles are attracted in numbers and, breeding with great rapidity, hasten its destruction. It is not unusual for the owners of forest lands to attribute the destruction of their trees solely to the larvæ of these beetles, whereas the injuries caused by running stock in the forest are the primary cause of this destruction, the insects only hastening the decay of trees already sickly and doomed. In virgin forests, untrodden by cattle and untouched by fire or ax, one may spend many weeks without seeing a single individual of the beetles, unless one chances on a tree in a natural state of decay, whereas in adjoining forests occupied by cattle hardly a tree of certain kinds is free from attack. Moreover, the evolution of nearly 60 allied species, so modified that their relationship with foreign forms is very remote, must have required vast ages for its accomplishment, and were they as destructive under natural conditions as under those induced by man all the trees attacked by them would have been exterminated ages before these islands were inhabited by him.

At the present time the various species of the Plagithmysiæ are parasitized by two species of Braconid flies, one a recent, the other an older importation. Both freely attack the introduced Cerambyciids as well as the native, and both are continually extending their range and increasing in numbers. In some cases we have known only 1 or 2 per cent of the larvæ to escape destruction from these parasites.

The older species was described from these islands as *Monolexis palliatus*; the recent arrival is probably an undescribed species. One native bird, the remarkable pseudonestor, feeds almost solely on the larvæ of these beetles, but it is restricted to a small area on Haleakala only. With regard to the 9 introduced Cerambycid beetles the same remarks apply as already made on the indigenous species. Destructive to sickly trees, they rarely if ever attack such as are in a healthy condition.

Fam. CURCULIONIDÆ.—*Aramigus fulleri*.—Introduced within the last twenty years probably, since it was not obtained by Mr. Blackburn, who collected at Olinda. It is well known on Maui as the olinda bug and in the United States as "Fuller's rose-beetle." It is injurious to the koa and other trees and plants on Maui. It has of late years been carried to Hawaii, where in certain localities it rivals the Japanese beetle in consumption of foliage. It has no natural enemies in this country.

Cylas turcipennis and *Hyperomorpha squamosa*.—Two weevils on sweet potato. The former also on other species of Ipomœa. No natural enemies known.

Sphenophorus obscurus.—The cane borer of these islands. Probably originally introduced in cocoanuts from Samoa, Fiji, or Tahiti. Found in large numbers in all stages in the drupe of seed cocoanuts recently imported from Samoa. Also breeds in banana, royal palm, and papaya.

Calandra oryza.—In rice and stored grain; introduced with a Chalcid parasite.

Fam. ANTHRIBIDÆ.—*Arcoecerus fasciculatus*.—Destroying seeds of many forest trees, e. g., koa, mamane, etc.; also in coffee berries. No natural enemies known here.

Fam. SCOLYTIDÆ.—*Hypothenemus maculicollis*.—Reported as injurious to (boring in) alligator pear on Hawaii; also injurious to many trees when pruned or in sickly condition.

H. eruditus often in company with the preceding in many kinds of trees and plants. Both are parasitized by a Bethyloid occasionally. No doubt both are imported species; the *H. eruditus* has been described under many names from different countries.

Xyleborus.—Many species, mostly native, but some (e. g., *X. pubescens*) introduced. Mostly attack only sickly or dying trees. Myriads of *X. pubescens* bred in the partially burnt trees of the plague-infested districts of Honolulu; and this and other species ravage the surviving but injured trees after a forest fire. A native species, probably *X. rugatus*, was destroying most of the surviving halaapepe trees near the head of Nuuanu Valley. No natural enemies known in these islands.

Fam. TENEBRIONIDÆ.—*Gnathocerus cornutus*, *Tribolium ferrugineum*, *Alphitobius piceus*, *Alphitobius diaperinus*, *Tenebrio molitor*.—In flour and stored produce, as in other countries; cosmopolitan introduced species.

Fam. BOSTRICHIDÆ.—*Bostrichus migrator*.—Boring holes in wooden tanks and also in woodwork of houses.

Fam. ANOBIIDÆ.—*Lasioderma serricorne*.—Injurious to cigars and cigarettes. Introduced species.

Fam. ELATERIDÆ.—*Chalcolepidius erythroloma*.—Introduced. Larvæ noticed breeding in numbers in orange trees, but these were probably unhealthy before they were attacked.

Fam. BUPRESTIDÆ.—A small unidentified beetle of this family was breeding in great numbers and doing much injury to trees in the lower part of the planted Tantalus forest in 1900. A recent introduction.

Fam. MELOLONTIIDÆ.—Introduced within the last ten years, probably from Japan, and generally known in the islands as the Japanese beetle. For some time it was restricted to Oahu, but has now spread to the other islands and has extended its range to a considerable elevation in the mountain forests. As a beetle it is injurious to some shade and forest trees as well as many ornamental plants. Fortunately, unlike many of its allies, it appears to do little or no damage in the larva stage. It has no insect parasites, but is readily destroyed by two species of fungi under conditions of moisture suitable for their growth.

Fam. COCCINELLIDÆ OR LADYBIRDS.—Formerly these beneficial insects were represented by only four species, and it is quite probable that all of these were accidentally imported with plants from other countries and that none were truly indigenous. These four species consisted of three minute species of *Scymnus* and the larger *Neda abominalis*. Owing to this deficiency in ladybirds, many scale insects especially, which had been introduced with foreign plants and with no natural enemies, increased beyond all bounds. The highly successful introduction of *Vedalia* as a remedy for the attacks of *Icerya* was followed by that of many other species, some of which have flourished, while others have failed to establish themselves. The most important (excluding the *Vedalia*) have been *Cryptolamius montrouzieri*, *Platynus viridigaster*, *Rhizobius ventralis*, *Coccinella repanda*, *Oreus chalybeus*, *Catophora pupillata*, *Scymnus debilis*, etc. *Chilocorus circumdatus*, which for a time bred freely and did fine work, has become extremely scarce, although its food remains abundant. A number of small and inconspicuous species are well established and abundant whenever an increase takes place in their special food.

Fam. NITIDULIDÆ.—*Carpophilus maculatus*, *Carpophilus dimidiatus*.—Domestic, attacking various articles of food.

Haptoncus spp.?—Breeding in fermenting exudation of growing cane, where attacked by other insects, and in seeds of some forest trees in company with *Brachyepylus*.

LEPIDOPTERA (Butterflies and moths).

Fam. CARADRINIDÆ.—*Agrotis upsilon*, *Agrotis crinigera*, *Agrotis dislocata*.—The caterpillars of these three species are the most widely spread and destructive of Hawaiian cutworms. They are properly called "Peelua" by the natives, from their habit of hiding themselves beneath the earth in the daytime. The native name, "Poko," also sometimes applied to these caterpillars, is more correctly restricted to other kinds. That of *A. crinigera* is the largest, and when, as often, it is found in myriads in a limited area, it destroys nearly all kinds of vegetables and garden produce. Sometimes all three species are found in company, and the caterpillars considerably resemble one another, although the moths are extremely different. The cutworm which produces *A. upsilon* is easily distinguished from the other two by the greasy appearance of the skin, which is seen even with a moderate lens to be distinctly shagreened, and by the nearly entirely dark sides of the head. It is a foreign species. The other two species are supposed to be peculiar to the islands, and their cutworms greatly resemble each other. *A. dislocata* is smaller, the eyes are placed on a distinct dark spot, and there is another largish spot above this. The *crinigera* cutworm attains a much larger size and is without the above-mentioned dark spots. Each of these cutworms is subject to the attack of and destruction by Tachinid flies. *A. dislocata*, at least, is destroyed by an Ichneumon fly of the genus *Limmerium*, but in spite of this it is locally and periodically abundant and injurious. There are 23 other species of cutworms of this genus known to inhabit the islands, but none of these have been reported as injurious.

Heliothis armiger.—Common in the islands, but not hitherto reported as injurious as in other countries. Much parasitized by Tachinid fly. This is the well known "bollworm," so injurious to cotton, cereals, etc., on the mainland.

Leucania unipuncta.—Very destructive in other countries, but so far not so reported in these islands. The true "army worm," which name is often applied in the islands to the following species, the *S. mauritia* or grass worm.

Spodoptera mauritia.—Caterpillar injurious to young sugar cane and highly injurious to pasture lands periodically, when it is seen in incredible numbers devouring the fresh blades of grass. No parasites reported, but no doubt it is attacked by Tachinid flies. It appears probable that this species is identical with the well-known and injurious *Laphygma frugiferda* of America. It forms a favorite food of the golden plover and ring dove, which attains its finest condition when feeding on these caterpillars.

S. Esigua.—Sometimes injurious to garden produce, cabbage, etc.

Fam. SELIDOSEMIDÆ.—*Scotorhythra idolius*.—The caterpillar of this moth is well known from the fact that it periodically destroys the foliage of the koa in the forests of Hawaii. This periodical defoliation of every tree over large areas would appear to be of comparatively recent origin and is probably to be attributed to the great decrease that has taken place in the numbers of the native birds, with many of which these caterpillars are a favorite food. They are apparently not greatly subject to the attacks of parasites, but are sometimes destroyed by the Ichneumonid flies of the genus *Limnerium*, and probably by some of the species of *Enicospilus*. Similar ravages in the koa forests of east Maui appear to be due to the caterpillars of the closely allied *S. paludicola*, but as nearly forty species of the genus are known, and the caterpillars of several may often be found on a single tree, it is probable that other species also join in the attack on the koa. *Scotorhythra* is a genus quite peculiar to the Hawaiian Islands, and consequently the chance of procuring parasitic enemies from elsewhere is not hopeful. An increase in the numbers of native birds which habitually feed on these caterpillars is required to keep down their numbers.

Fam. PIERIDÆ.—*Pieris rapæ*.—The cabbage or garden white butterfly is a recent introduction and, as in all other countries where it is native or has been introduced, injurious to cabbage. Nevertheless, it has not increased to the extent that might have been expected in the absence of its natural enemies, at least around Honolulu. This is certainly largely due to the fact that here it almost ceases to appear during the summer months, and that the caterpillar is preyed on by one of the foreign wasps, while the eggs are devoured by some of the imported species of ants. These enemies seem to more than make up for the absence of the European parasites. In this country only the summer form of the butterfly is produced, there being no seasonal dimorphism. In places remote from cultivation the caterpillar of this butterfly feeds as freely on the native *Capparis* (Puapilo) as it does on the cabbages in gardens.

Fam. PHYCITIDÆ.—*Ephestia elutella* and other species.—Imported domestic species, injurious to stored produce, as in nearly all countries.

Fam. PYRAUSTIDÆ.—*Margarona eaula*.—Caterpillar between the leaves of many kinds of Euphorbiaceous plants, both native and introduced, often entirely destroying the foliage. It is eaten by the sparrow in Honolulu and in the forests is killed by native predatory wasps.

Omiodes blackburni.—The caterpillar of this moth is the cocoanut leaf worm, and few of these palms can be seen which are not greatly disfigured by its attack. It also feeds on the leaves of other palms and sometimes entirely kills those of the banana. It is much parasitized in many localities by a species of *Ectromorpha*, as well as by the introduced *Chalcis obscurata*; sometimes also by *Pimpla*. But for the attacks of these it is probable that the cocoanut palm could hardly exist here. The cocoanut moth is peculiar to these islands.

Omiodes accepta, *Omiodes epicentra*.—Caterpillars feed on grasses and the leaves of sugar cane. Rather injurious. Much sought after by predaceous native wasps (*Odynerus*), being the favorite food of some species.

Omiodes, other species.—Of several of these the caterpillars are grass eaters, but they appear to choose generally such kinds as are of little value as pasturage. Consequently, although extraordinarily numerous in most pasture lands, their attacks are of small account.

Helthula undalis.—Caterpillar well known on the American continent as the web-worm of the cabbage, to which it is also injurious in these islands. No natural enemies are known in this country, but on the Continent it is parasitized by the Ichneumon fly, *Meteorus*, and a Braconid *Porizon*.

Tortricina and *Tineina*.—The small moths comprised in these two groups are very numerous represented in the islands, and in some cases the species are important economically. As an extensive work on these is now in the press it is not possible at the present time to refer to the species listed below by their scientific names, as these are for the most part not yet published.

(1) *Yellow Tortrix of the Citrus*.—Probably a very recent introduction, most probably brought on citrus trees from Australia, where it is known to occur, as also in New Caledonia. Though especially injurious on lime and orange trees, the yellow or green caterpillar is polyphagous, feeding on such diverse plants as *Euphorbia*, *Oleander*, *Nasturtium*, cotton, seeds of *Acacia* koa, fruit and seed of *Eugenia*, etc. It appears to be rapidly increasing each year, although parasitized by *Chalcis*, *Chelonus*, and *Pimpla*. On citrus trees it not only eats the leaves, especially those of young shoots, but gnawing at the base of the young fruit causes this to drop off, so that sometimes 90 per cent or more of the fruit on a tree which is badly attacked is lost.

(2) *Small red Tortrix of the Koa*.—Very numerous in many koa forests, caterpillar feeding on terminal twigs and on seeds.

(3) *Dark-colored Tortrix of Koa*, feeding in gall-like swellings of the stem.

(5) *Larger red seed-eating Tortrix*.—Seeds of *sapindus*, *koa*, *acacia farnesiana*, etc. Sometimes destroying every seed of the last named, the flowers of which are valuable for making perfume, and the beans as food for cattle.

(5) *Gray Tortrix of the Mamane (Sophora)* caterpillar; destroying seeds.

All the above species are important as destroying large quantities of seed of valuable forest trees, especially *Acacia koa* and *Sophora chrysophylla*. They are hardly, if at all, accessible to the attacks of any species of birds, but some of them are a favorite food of many native wasps, but for which, with the aid of many other species of their own family, they would probably devastate the forest. Several are certainly foreign insects, imported with seeds and plants, and it is probably due to the attacks of one or other of these that in some districts it is said that hardly a sound seed of the *koa* is now attainable.

(6) *Gray Tortrix of the Ohia (Metrosiderus)*.—Numerous in places and injurious, but the caterpillars destroyed to an enormous extent by native wasp.

(7) *Azinis hilarella*.—Caterpillar defoliating the *koa* tree (*Cordia subcordata*) or greatly disfiguring it. Sometimes parasitized by *Pimpla*. Only attacks the native *Cordia*. An introduced and handsome species is quite free from this caterpillar.

(8) *Gelechiid (undetermined)*, attacking cotton bolls.

[Parasitized by *Chelonus blackburni*.]

HEMIPTERA (BUGS, PLANT LICE, SCALE INSECTS, ETC.).

The native Hemipterous fauna consists to a large extent of Capsidae in the one section and of Fulgoridae in the other. All these are confined entirely to the mountain forests and even when abundant are apparently harmless. Scale insects and Aphididae were certainly absent until carelessly imported with plants by the white man, but are now represented by numerous species, some of which have proved extremely injurious.

HEMIPTERA HOMOPTERA.

Fam. FULGORIDÆ.—(1) *Paciloptera acuta*.—On mango and coffee trees, especially in wet districts, and on forest trees up to 2,000 feet. Badly affected trees have the foliage entirely black from the fungoid growth on the excretions of the insect. No natural enemy known in this country. The species was probably imported about twelve years ago.

(2) *Fulgorid of the sugar cane*.—Probably a recent importation, since the species has only come into prominent notice during the last year or two. It is commonly known as the sugar cane leaf hopper, being similar in appearance to the Jassids, which are more correctly termed leaf hopper. It would appear to be different to any of the three species recorded as injuring cane in Java. Seed cane recently imported from Queensland contained eggs abundantly and some immature forms or larvae of a Fulgorid very similar to and perhaps identical with the Hawaiian pest. The eggs are laid either in the leaf or in the stem of the cane beneath the surface in a small chamber formed by the ovipositor of the parent. A minute scar marks the situation of this chamber. When badly affected the leaf becomes either spotted or entirely red, and the usual black fungoid growth follows the attack. The only natural enemies to this Fulgorid at present are a recently (and accidentally) imported Reduviid bug, now becoming very numerous, and the various kinds of spiders, which are usually abundant in the cane fields.

Fam. APHIDIDÆ.—Three or four species of Aphis have been imported with plants, but the introduced Coccinellids generally keep these fairly in check. The larvae of *Chrysopa microphyta* and *Xanthogramma grandicornis* also do excellent service, but the latter is itself subject to the attacks of hymenopterous parasites. Certain species of Braconid hymenoptera and additional species of Syrphidae might advantageously be imported to assist the above-mentioned enemies of Aphis.

Fam. COCCIDÆ.—No complete list of Hawaiian scale insects has been published, but the species may be estimated as numbering from 50 to 75. Owing to the introduction of ladybirds and hymenopterous parasites very few of these species now do any serious damage, the ravages of *Icerya*, *Pulvinaria*, and others being things of the past. Some scale insects formerly ubiquitous and often in myriads on a single bush, as a few years since was *Ceroplastes*, now require hunting for. Apart from the ladybirds the Chalcid parasites of the genera *Encyrtus*, *Toinocerus*, *Coccophagus*, etc., have done excellent service.

At the present time probably the two most injurious scale insects are the purple scale, *Mytilaspis citricola* of the citrus trees and the white *Eriococcus* of the alligator

pear, guava, and other trees. Though the male scale of the latter is readily eaten by several ladybirds, a good enemy for the female is much needed.

One scale insect (*Orthezia insignis*) has been lately spread by some landowners over the land in the hopes that it will destroy the lantana. The wisdom of this course is very questionable, as the *Orthezia* is well known elsewhere to be a most destructive insect, attacking a great variety of trees other than lantana. It is said to be particularly injurious to rutaceous trees, of which, as is well known, a large part of the Hawaiian forest consists.

HETEROPTERA.

Fam. REDUVIIDÆ.—A brightly colored Reduviid bug imported accidentally within the last few years has now become extremely common. It does good work in preying on many injurious insects, such as plant lice, the cane hopper, etc. At the same time it destroys to some extent the beneficial ladybirds, piercing them through with its beak.

DIPTERA (TWO-WINGED FLIES).

The injurious Diptera consist entirely of imported species and include the usual species infesting stock, the horn fly (*Haematobia serrata*), imported during recent years, being now the worst and extremely numerous. The (*Estrus oris*, attacking sheep, and two or three undetermined bot flies, attacking cattle, have been imported with stock as in in other countries. The two species of *Culex*, or mosquito, one of which is diurnal, the other nocturnal, are excessively numerous on the lowlands and up to moderate elevations in the mountains. In some districts of the islands where they are very troublesome they could be practically exterminated by the usual remedies with comparatively small trouble, but in places where are extensive taro patches, rice fields, and swamps, their extermination is probably impracticable. Fortunately the *Anopheles* mosquito is absent from the islands, and the true intermittent or malarial fever is consequently not known except in the chance case of a person just arrived from other countries with the fever still in the system.

Fam. TRYPETIDÆ.—Some five or six years ago a fruit fly was introduced, which practically put an end to the raising of melons, cucumbers, etc., unless these were so guarded that the fruit was inaccessible to the fly. This species was described at Washington as *Dacus cucurbitæ*, from Honolulu. Its true home is, no doubt, either Japan or China. At Hongkong a species is found almost identical in size, color, and form, and which only differs in having an additional pair of bristles on the scutellum. Parasites for the melon fly could, no doubt, be procured from that country.

Fam. ORTALIDÆ.—*Euxesta annonæ*.—Larva on cane attacked by other insects. An introduced species.

Orthoptera, crickets, grasshoppers, etc., collectively known as "Uhini" or "Unihi" in Hawaii, and the roaches as "Elelu."

The native insects of this group are of no importance economically, but some of the imported ones are more or less injurious. Of nearly a score of Blattidæ (roaches) all but one are certainly imported. Most of these are parasitized by two species of *Evania*, and are consequently much less numerous than they otherwise could be. The *Eleutheroda dytiscoides* sometimes kills the branches of cypress and other trees, gnawing off the bark. The grasshopper (*Oryza velox*) and the locustid (*Xiphidium fuscum*) frequently swarm in cane fields and grass lands, and must necessarily do a certain amount of damage. They have no natural enemies of importance.

NEUROPTERA.

The foreign dragon flies or Pinau (*Pantala*, *Anax*, and *Tramea*), which are natural immigrants, are of considerable value in destroying mosquitoes in all stages and the winged adults of Termites. Additional species, especially such as would live in brackish water, might advantageously be imported. The *Chrysopa microphylla*, as already noticed, feeds on many kinds of scales, plant lice, etc., and other species of similar habits might well be introduced.

HYMENOPTERA (BEES, WASPS, ICHNEUMON FLIES, ETC.).

The beneficial parasitic Hymenoptera have already been noticed under various pests. It remains to call special attention to the native wasps (*Odynerus* and allied forms), since they are not only of extreme importance for the protection of many forest trees, but also for the preservation of many forage plants. Existing in all seasons in millions on each island of the group, and continually storing up caterpillars for their young, the extent of their services is known only to those who have

specially studied the matter. Many of the caterpillars destroyed are of the most hidden kinds, and such as are not subject to the attacks of birds. At present these wasps have no enemies, the native birds not feeding on them in any stage, or at least only on very rare occasions. For this reason the importation of all birds which hunt for food along dead branches of trees (in which the white grubs of most of the forest-frequenting wasps are placed) is carefully to be avoided, as well as of such insectivorous birds as are liable to feed on these insects when in the mature state. Similarly no insect parasite which might possibly attack the larva of these wasps should ever be introduced into the islands.

Megachile palmarum (leaf cutter or tailor bee).—Disfiguring many ornamental plants and shrubs by cutting out oval and circular pieces from the leaves. Of comparatively recent introduction, now extremely numerous. No insect parasites.

FISHERIES.

A law forbidding the use of nets in fishing with a mesh under a certain size is vital to the protection of the sea fisheries.

The use of small-mesh nets and the use of dynamite is seriously injuring the fishing interests of the Territory.

As Chinese and Japanese fishermen are mainly responsible for the injury caused by the use of a small mesh, a remedy may be found in the provision of the organic act, section 95, which opens all sea fisheries to citizens of the United States, the implication being that those who are not citizens are without fishing rights. Measures have been taken to subject the fishing privileges of noncitizens to certain strict regulations in regard to the size of mesh of fishing nets and the use of dynamite.

Honolulu fish market.—Fish exposed for sale, 2,571,796; fish condemned, 31,650, or 1.23 per cent.

Hilo fish market.—Fish exposed for sale during eleven months to July 1, 582,077; fish condemned, 1,409, or 0.24 per cent.

The disparity in the percentage of fish condemned in Honolulu and Hilo can hardly be accounted for, except on the ground of greater strictness on the part of the Honolulu inspectors.

Eighty-eight kinds of fish by the Hawaiian nomenclature were recorded at the Honolulu market and 76 kinds at the Hilo market. Both markets had five kinds of other marine animals exposed for sale as food, such as turtles, squid, crabs, crawfish, and sea urchins.

CORPORATIONS.

On June 30, 1901, there were 350 corporations in force.

Corporations filed from July 1, 1901, to June 30, 1902.

Agricultural	2
Mercantile	52
Insurance	1
Railways	2
Benevolent societies	2
Total	59

RAILROAD ENTERPRISE.

The Hawaii Railway Company operates 20 miles of 3-foot track in North Kohala, island of Hawaii. Weight of rails from 20 to 35 pounds per yard. Rolling stock, 4 locomotives and 80 cars. Business of the road consists mainly in carrying plantation supplies and sugar, includ-

ing lighterage of freight and loading of sailing vessels at the port of Mahukona. Freight is 10 cents per ton per mile. Capitalization, \$50,000; working capital, \$85,000. Business satisfactory.

The Oahu Railway and Land Company was incorporated in 1889 for the purpose of building steam railroads on any part of the island of Oahu, and to this end a franchise was granted for fifty years.

The line extends around the southern side of the island to Kahuku, the northernmost part of the island of Oahu, a distance of 71 miles. Including branches and sidings the road has in operation a total of 84 miles.

The company controls about 80,000 acres of pasturage and sugar lands under from forty to fifty year leases. On these lands are located Ewa and Kahuku plantations and a portion of Honolulu and Oahu plantations.

There are six sugar plantations on the line of the road, with an aggregate yield at present of 95,000 tons of sugar. All of the freight to and from said plantations is at present carried over the railroad.

The track is 3-foot gauge, 48-pound rails; 12 locomotives are in use and 276 cars. The number of passengers carried from July 1, 1901, to July 1, 1902, was 437,645. The number of tons of freight hauled during the same period was 308,534.

During the past two years the company has made extensive improvements on its water-front property, constructing 4,000 linear feet of wharfage with a depth of water 30 feet. The same are equipped with two warehouses having a storage capacity of 10,000 tons each, and provided with electric conveyers capable of delivering to vessels lying at the docks 250 tons of sugar per hour.

The Hilo Railroad Company was chartered May 28, 1899; capital stock, \$1,000,000; authorized capital, \$10,000,000; \$850,000 6 per cent coupon 1-20 bonds have been issued.

The road has been constructed from Waiakea, at the east side of Hilo Harbor, to Kapoho, in the district of Puna, a distance of 24 miles. On this line, and 7 miles out from Hilo, is the Olaa Sugar Company's mill. From this point the railroad runs through Keanu and Olaa to the 22 milepost on the Volcano road, 9 miles from the Volcano House. The elevation of this terminus is 2,300 feet. This part of the line is nearly constructed, and will probably be finished by January 1, 1903. The company intends to extend the railroad along the beach at Hilo to the post-office block north of Waianuenue street and to the wharf, with a branch to Hawaii mill. The location of this extension has been approved by the Territory of Hawaii in accordance with the terms of the franchise of the company.

The railroad is of standard gauge, with rails weighing 60 pounds per yard. Equipment consists of 3 Baldwin locomotives, 1 Schenectady locomotive, and 60 cars.

The company is also equipped with a first-class machine shop and foundry capable of doing any kind of plantation or railroad work.

Kona-Kau Railway.—Prior to the incorporation of the Kona-Kau Railway Company there had been two railway companies for the island of Hawaii incorporated, which contemplated the extension of railroads substantially around the island with the exception of Kona and Kau districts. The Kona-Kau Railway Company plans eventually to connect with such roads, thus effecting a continuous line of rails around the island of Hawaii.

Preliminary surveys have been made of the whole length of the proposed line of this company, about 120 miles. Between 25 and 30 miles have been surveyed, located, and mapped, and subject to the approval of the governor, are ready to be contracted for. About \$50,000 have already been expended.

The seacoast terminus of this road will be at Kealakekua Bay. The level of the main line will approximate 1,400 feet. It will traverse the Kona and Kau districts at about that level.

Prospects are favorable for the beginning of the work of construction early next year.

STREET RAILWAYS.

I have not been able to obtain a report from the Hawaiian Tramways Company, Limited, of their year's work. The governor's report of 1900 is approximately applicable to this company for the past year except as to its income, which has probably fallen off somewhat, owing to the competition of the Honolulu Rapid Transit and Land Company.

The latter company began operations on the 31st day of August, 1901, with a track mileage of 4.4 miles, and constructed and put into operation within a year 7.31 additional miles, making a total of 11.71 miles. An extension to Waikiki, a populous suburb on the seashore, is under construction. Since this company began carrying passengers no interruption through any defect in the steam or electrical equipment has occurred.

The following table furnished by Mr. Ballentyne, the manager of the company, gives the monthly results for the first year's operations:

Month.	Mileage.	Passengers.	Earnings.	Expenses.	Net earnings.	Miles in operation
1901.						
September.....	24,938	201,922	\$10,001.25	\$4,740.14	\$5,261.11	4.40
October.....	29,032	192,257	9,327.55	5,603.07	3,724.48	6.17
November.....	33,487	214,286	10,445.15	6,464.44	3,980.71	7.17
December.....	42,594	270,633	13,125.90	7,454.30	5,671.60	7.95
1902.						
January.....	47,775	277,891	13,411.25	8,431.08	4,980.17	7.95
February.....	43,567	259,819	12,439.05	7,301.45	5,137.60	7.95
March.....	47,817	263,902	12,626.35	7,595.96	5,030.39	7.95
April.....	46,798	270,212	12,976.10	7,857.26	5,118.84	7.95
May.....	48,521	283,133	13,527.60	8,053.65	5,473.95	7.95
June.....	51,663	300,874	14,516.10	7,866.49	6,649.61	9.26
July.....	67,736	345,248	17,016.40	10,116.51	6,899.89	11.10
August.....	71,505	345,056	16,944.70	9,420.18	7,524.52	11.71
Total.....	555,433	3,255,233	156,357.40	90,904.53	65,452.87	α 8.12

^a Average.

Average operating expense to earnings, 58.1 per cent.

Average expense of carrying passengers per head, 2.8 cents.

EDUCATION.

The report of the superintendent of public instruction, Mr. Alatau T. Atkinson, for the past year is very concise and yet so full that after incorporating the greater part of it in my report there is little left for me to say on this subject.

I would call attention to some interesting deductions drawn from Mr. Atkinson's figures.

The number of pupils in the public schools is 13,189, showing an increase of 6,041, or 84½ per cent, over the number in 1892, which was 7,148.

The number of pupils in private schools is 4,329, showing an increase of 1,317, or 44 per cent, over the number in 1892, which was 3,012.

The number of pupils in all schools 17,518, showing an increase of 7,358, or 72 per cent, over the number in 1892, which was 10,160.

In the public schools there is an average of 35 pupils to one teacher, and in private schools an average of 19 pupils to one teacher.

Of the teachers in the public schools 72½ per cent are women and 27½ per cent are men; of the teachers in private schools 64½ per cent are women and 35½ per cent are men, while of the teachers in all schools 69½ per cent are women and 30½ per cent are men.

Of the pupils in the public schools 55 per cent are boys and 45 per cent are girls; of the pupils in private schools 53½ per cent are boys and 46½ per cent are girls, while of the pupils in all schools 54½ per cent are boys and 45½ per cent are girls.

Hawaiians and part Hawaiians make up 24½ per cent of the teaching force in public and private schools, while in the public schools alone they form 44½ per cent of the teaching force. Among the pupils of all schools Hawaiians and part Hawaiians form 44½ per cent and in the public schools 46½ per cent.

[Extract from the report of the superintendent of public instruction.]

The public schools of the islands are 143 in number, while the private or independent schools are 54. This by no means gives the number of school buildings. Many of them are being taught in several buildings. Thus the normal school has three separate buildings, the Ainakea School in Kohala has two, so has the Makapala School in the same district, the Royal School has four, and so forth. By the 143 schools is meant 143 schools under the charge of 143 principals. These schools vary in size from 600 in some of the city schools to an enrollment of 15 or 20 in very remote and isolated villages.

The total enrollment in all schools of the Territory is 17,518. The enrollment in the public schools on June 20 of this year, when the schools closed for vacation, was 13,189, the largest number ever reported. In 1892 the enrollment was 7,148, so that there has been an advance of say 6,000 during the decade. These pupils are instructed by 380 teachers. The enrollment of the private or independent schools is 4,329 as against 3,012 in 1892, an advance of say 1,300 in the decade. These schools receive instruction from 229 teachers. The accompanying table shows these facts:

Number of schools, teachers, and pupils in the Territory of Hawaii.

	Schools.	Teachers.			Pupils.		
		Male.	Female.	Total.	Male.	Female.	Total.
Public schools.....	143	104	276	380	7,233	5,956	13,189
Private schools.....	54	81	148	229	2,318	2,011	4,329
Total	197	185	424	609	9,551	7,967	17,518

The nationality of pupils in the schools is varied, there being no less than eleven divisions. The comparative table will show that while the Hawaiian school children of unmixed blood have somewhat decreased, the Hawaiian children of mixed blood have increased. Ten years ago, in 1892, the number of Hawaiians of unmixed blood numbered 5,353, and the Hawaiians of mixed blood, or part Hawaiians, reported 1,866 or 7,219 in all. At the present time, 1902, there are 4,903 Hawaiians, and 2,869 part Hawaiians, making a total of 7,772, an increase of 500 children who claim Hawaiian ancestors.

In the same period of time the Portuguese children attending school have increased from 2,253 to 4,124, or have practically doubled, the increase being close on 2,000

during the ten years. The increase of Portuguese children attending school has been four times that of those of Hawaiian descent. On the other hand, if we eliminate the Hawaiians of pure blood we find the increase of the part Hawaiian to be very close to the increase of the Portuguese, the part Hawaiian showing an advance of 1,296 children in school during the ten years. This increase, of course, does not come from importation, but from the natural increase of families born and brought up here. On the other hand, among the Japanese a number of children were born in Japan and brought here.

Some idea of the increase of Japanese population can be gathered from the fact that in 1892 there were but 60 Japanese children in school, while in 1902, ten years later, there were 1,993. Chinese children have increased in the decade from 353 to 1,395. These form the main races from which our schools are recruited.

The Porto Ricans, though only about two years in the country, show up to the number of 596.

As these races are mingled in school, there being no government school devoted to any special race, the problem of teaching these pupils is no easy one. The whole mass is taught in the English language, and that we should have the success which has attended our efforts argues well for the system which has been instituted and carried on for the last fifteen years. Up to the year 1887 there were quite a number of public schools taught in Hawaiian. By continued petitions from the parents these schools were gradually converted into English schools. The last school taught in Hawaiian was changed into an English school in 1901. This was on the island of Niihau. One of the young Hawaiians on that island, the grandson of the native schoolmaster, came to Honolulu, was educated in English, and has returned to the island to teach the future generation of Niihau Islanders in the English language. The following is the table of school children, by nationalities:

Nationality of pupils attending school in the Territory of Hawaii.

	Public.	Private.	Total.
Hawaiian	4,146	757	4,903
Part Hawaiian	1,993	876	2,869
American	447	365	812
British	143	97	240
German	155	182	337
Portuguese	2,876	1,248	4,124
Scandinavian	74	24	98
Japanese	1,785	208	1,993
Chinese	931	464	1,395
Porto Ricans	539	57	596
Other foreigners	100	51	151
Total	13,189	4,329	17,518

To instruct this heterogeneous mass of pupils the public schools employ 380 teachers and the private schools 229. This gives an average of 34 pupils to each public school-teacher and an average of 19 pupils to every teacher in the private schools. The public school work, therefore, is a great deal harder than the work in most of the private schools.

Of the nationalities employed in the teaching force of the public schools 58 are Hawaiians and 59 are part Hawaiians, making 117 teachers of Hawaiian descent, everyone of whom has passed through the schools of the Territory, and the majority holding certificates from the department of education, obtained by examination, or from the territorial normal school, after a three years' course. American teachers, however, head the list with 188 individuals. Of these, while many come from the mainland, a large percentage is supplied from those born and brought up on the islands, and some of the most useful and progressive of our teachers are the product of our own public schools and normal school. The Portuguese and Scandinavians employed as teachers in the public schools have nearly all been brought up in the territorial schools. They are the descendants of immigrants who came here as laborers in the first instance. They all earn good salaries. There is a case here of a Portuguese young lady whose parents came to work on the plantations, receiving wages of \$20 to \$25 a month. She distinguished herself in school, studied and passed her examinations for a first-class certificate, and, having occupied positions as assistant, is now principal of a large school at a salary of \$1,000 a year and a good prospect of future advancement.

The private schools employ more teachers of foreign parentage than the public schools. They employ only 32 teachers of Hawaiian blood, and very few of their

42 REPORT OF GOVERNOR OF THE TERRITORY OF HAWAII.

teachers have been educated in the Territory. The Portuguese teachers in this employ have been drawn from the Portuguese colony in Jacksonville, Ill., and are of course Protestants. The majority of the Portuguese employed in the public schools are Roman Catholics. The following table gives the nationalities of the teachers in the two classes of schools in the Territory, and likewise the totals. Out of a total of 609 teachers, 185 are males and 424 are females:

Comparative table of nationality of teachers.

Nationality.	Public schools.	Private schools.	Total.
Hawaiian	58	21	79
Part Hawaiian	59	11	70
American	188	141	329
British	44	12	56
German	3	8	11
Portuguese	16	7	23
French	1	9	10
Scandinavian	10	5	15
Belgian		3	3
Japanese		5	5
Chinese		6	6
Other foreigners	1	1	2
Total	380	229	609

In the following table the distribution of the public and private schools, together with the teachers and pupils, is given according to the various islands. It will be noted that the bulk of the private schools is to be found on the island of Oahu, and practically in the city of Honolulu. These private or independent schools receive their support from endowment estates, as Oahu College, with its preparatory and kindergarten attachments, to which institutions lands and money have been donated and willed, and also the Kamehameha schools for boys and girls, which receive their income from the Bishop estate lands, left for the purposes of education, by the late Bernice Pauahi Bishop. Others are supported by religious bodies, as the St. Louis College by the Roman Catholics, and certain seminaries by the Protestant denominations. There are also a few small schools kept for profit by their teachers.

Distribution of schools, pupils, and teachers in the Hawaiian Islands.

PUBLIC SCHOOLS.

Island.	Number of schools.	Teachers.			Pupils.		
		Male.	Female.	Total.	Male.	Female.	Total.
Hawaii	56	37	91	128	2,367	1,970	4,337
Maui and Lanai	30	27	37	64	1,170	1,008	2,178
Molokai	9	5	6	11	135	108	243
Oahu	33	22	113	135	2,587	2,090	4,677
Kauai and Niihau	15	13	29	42	974	780	1,754
Total	143	104	276	380	7,233	5,956	13,189

PRIVATE SCHOOLS.

Hawaii	11	13	23	36	411	376	787
Maui and Lanai	9	6	21	27	234	341	574
Molokai	1	3		3	44		44
Oahu	29	54	100	154	1,545	1,218	2,763
Kauai and Niihau	4	5	4	9	75	76	151
Total	54	81	148	229	2,318	2,011	4,329

The next table shows the ages of pupils in the schools, giving private schools, public schools, and also the totals. Of the 17,518 enrolled pupils, 15,525 are of regular school age. The pupils below school age are chiefly in the kindergarten schools, while those above school age are in such institutions as Lahainaluna Seminary, Oahu College, St. Louis College, the high school, the normal school, together with a sprinkling in the higher classes of various large schools throughout the group.

Ages of all pupils in all schools of the Territory of Hawaii.

Age.	Public schools.			Private schools.			Total, public and private schools.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.
Under 6 years.....	198	149	347	262	298	550	460	437	897
6 to 8 years.....	2,385	1,719	4,104						
6 to 15 years.....				1,711	1,486	3,197	8,458	7,067	15,525
6 to 15 years.....	4,362	3,862	8,224						
Above 15 years.....	288	226	514	345	237	582	633	463	1,096

Besides the regular course of study attention is given to industrial work, drawing, and sewing. The results of some of the work have been shown at Buffalo and Charleston. The exhibit at the latter gained a first-class medal. Effort is being made to have all pupils, whether boys or girls, taught sewing. There will in the future be a steady increase in all this style of working. Besides teaching the brain to think and the tongue to speak, we must have the fingers to work.

Number of pupils in sewing, agriculture, manual work, drawing, and tonic sol fa in public schools.

Island.	Sewing.	Knife work.	Agriculture.	Lauhala and bamboo work.	Mat weaving.	Other manual training.	Drawing.	Singing tonic sol fa.
Hawaii.....	1,542	64	1,473	132	79	257	1,641	1,943
Maui.....	1,010	53	416	258	39	314	1,287	1,318
Molokai.....	69	18	115	56	38	17	67	123
Oahu.....	2,496	360	2,492	119	119	1,181	4,053	3,802
Kauai and Niihau.....	772	41	514			321	1,143	955
Total.....	5,889	536	5,010	565	275	2,090	8,191	8,204

THE SCHOOL SYSTEM OF HAWAII.

The following sketch of the school system of the islands, which was prepared recently, will, with the tables furnished above, give a clear and comprehensive idea of the plans which have been followed and which are now being carried out in the Territory:

The Hawaiian Islands, now comprising the Territory of Hawaii, have had for more than two generations a well-organized and efficient public-school system. This system was originally the work of some of the ablest of the men who made their homes here during the first half of the nineteenth century, and has been carefully developed and built up to fit peculiar local conditions. Like all systems of human devising, the Hawaiian school system is capable of further advance and improvement as experience may show the same to be desirable and practicable. But such advance should be on lines already wisely laid down by those who were and are thoroughly familiar with existing conditions. Any radical reorganization of our school system, however well meant, could only result in grave disaster to the educational interests of the Territory.

HISTORICAL.

The educational history of this archipelago extends over a period of nearly eighty years. Soon after their arrival, in 1821, the members of the first company of American missionaries interested themselves in educational matters, the first spelling book having been printed in 1822. This may be regarded as the first step toward popular education in these islands, but in the beginning it was an education of adults rather than children. Between the years 1823 and 1827 a peculiar system of schools sprang up and spread rapidly over the islands, and flourished for about ten years. The chiefs and their immediate attendants were the first pupils. From 1830 to 1840 the American missionaries maintained model schools at each of their stations. From this time the attendance of adults fell off rapidly, and the principal attention thenceforth was paid to the education of children.

In 1831 the missionaries established Lahainaluna Seminary on the island of Maui, chiefly as a training school for native teachers and preachers. Industrial training was from the first a prominent feature in the curriculum. A printing press and book-binding were attached to the school, at which numerous text-books were published, and in 1834 the first newspaper ever printed in the Pacific Ocean, the *Lama Hawaii* (the Light of Hawaii), was issued. Maps and illustrations for text-books were also engraved on copper by the pupils. This school is still in existence, having become a part of the public-school system. Industrial training is, as heretofore, a prominent feature.

A few years later boarding schools for girls were established at different points, several of these being still in operation. In 1839 a boarding school for boys was established in Hilo, Hawaii, and in this school manual labor has always been a leading feature.

The institution now known as Oahu College was originally founded by American missionaries in 1841 for the education of their own children, and was chartered in 1849 as a public institution. A new charter, providing for a college as well as a preparatory school, was obtained in 1853. This institution is well equipped as to both buildings and apparatus, and has a considerable endowment.

What are known as the Kamehameha schools were established under the will of the late Mrs. Bernice P. Bishop, an Hawaiian lady of the highest rank, wife of C. R. Bishop, of the banking house of Bishop & Co., she having left the bulk of a large property in the hands of trustees for that purpose. Mr. Bishop, being possessed of ample means, has supplemented his wife's bequest with large and repeated gifts from his own fortune.

Having had ample means at their command, the trustees have been able to organize and equip the schools on very liberal lines. In addition to a large boarding school for girls, there is a boys' school combining manual and technical instruction with the ordinary school branches; also a preparatory department. Commodious and well-equipped workshops, with steam power, electricity, and the best mechanical appliances, enable this school to give a thorough training in various departments of wood and metal working, and the boys show a very satisfactory degree of interest in their work and of capacity for acquiring proficiency therein. The pupils in these schools are all in whole or in part of native blood.

PUBLIC SCHOOLS.

The history of our public or Government schools extends over a period of sixty years, the first school law having been enacted in 1841 by the King and chiefs in council. This somewhat antedated anything corresponding to our ideas of modern constitutional government, and the inspiration of those taking this action doubtless came from their foreign teachers and friends.

In 1843 a department of public instruction was organized and the official at the head thereof given the rank of a minister of the crown. This position was first filled by Hon. W. Richards, and at his death, in 1847, he was succeeded by Rev. R. Armstrong, the father of the late Gen. S. C. Armstrong, of Hampton. General Armstrong was born in Honolulu, and received his early education here.

In 1855 the department was remodeled and placed under a board of education, whose president exercised the same powers and was charged with the same duties formerly belonging to the minister of public instruction.

In 1896 the administration of the public schools was again raised to the rank of an executive department, to be presided over by a minister and a board of commissioners, it being provided that the minister of foreign affairs should be ex officio minister of public instruction.

The act of Congress providing a Territorial government for Hawaii made a change in the title of the head of the department, who is now known as "superintendent" instead of "minister."

Neither of the last two changes named made any material difference in the educational system as such, nor in the everyday administration of its affairs.

FURTHER FACTS.

The following additional facts concerning the Hawaiian public school system are important:

I. The sole basis and medium of instruction in all public schools is the English language.

II. Tuition in all the public schools is absolutely free. Pupils buy the text-books needed, but these may be provided by the department free in cases of extreme pov-

erty. Text-books are imported by the department in large quantities and supplied at cost.

III. School attendance from 6 to 15 years of age is compulsory. Children within those ages are not required to attend government schools; parents can send them to private schools if they so prefer, but to some school taught in the English language they must go, and that with a fair degree of regularity. A system of truant officers or school police enforces that provision of the law in the country districts as well as in Honolulu.

IV. Teachers' salaries are regulated by a carefully prepared schedule, and are based on (a) grade and size of school, (b) class of certificate held, and (c) length of satisfactory service. The schedule is uniform for all, and makes no account of race, color, nationality, party politics, or religious belief. Neither are salaries affected by sex. Men and women filling corresponding positions and having equal certificates and experience receive the same pay.

V. Examinations of candidates for teachers' certificates are held at least once a year, generally during the latter part of the summer vacation. These examinations are open without cost to all who choose to present themselves, and certificates are issued of three classes, according to the average percentages obtained by candidates. In the matter of scholarship and qualifications, as in that of salaries, the rule and standard is the same throughout the Territory.

VI. The department takes a justifiable pride in the fact that its teachers and other employees are paid regularly and promptly. Warrants on the treasury for salaries are dated on the last day of each month, and are always paid on presentation.

INSPECTORS.

There is a regular system of inspection, the Territory being divided into three circuits. This enables visits to be made to each school at least three times a year. The inspectors also hold meetings of the teachers for the purpose of giving advice and practical illustration, and of promoting in every way possible the interest in education.

SANITARY INSPECTION.

Under a rule of the board of health, all children attending school must be examined by a physician, and must be pronounced free from any contagious disease. A rule of the department of education requires that all teachers must produce a medical certificate that they are free from any infectious or contagious disease, and especially from tuberculosis.

SPECIAL SCHOOLS.

With a view of supplying teachers from among the pupils born and brought up on the islands, a normal school has been established. This had its commencement some ten years ago in a small normal class taught in the afternoons. From this small beginning has grown what promises to be one of the most important educational institutions on the islands.

THE NORMAL SCHOOL.

The total enrollment of the normal school for the year 1901-02 is 92. This is an increase of more than 40 per cent on the enrollment of the previous year. Of this number 60 are Hawaiian or part Hawaiian, 10 are Chinese, while the remaining are of American or European extraction. Eight nationalities are represented in the school.

There has been a marked improvement in the general character of the applicants for admission to the normal school, and as a result of this the standard of admission and consequently of graduation has been raised. This improvement argues well for the schools of the country. At the close of this year 22 were recommended for certificates.

The following are the departments into which the work of the normal school is divided: Theory of art of teaching, geography, mineralogy and observational astronomy, nature study and agriculture, mathematics, history, English and expression work, music, drawing.

Each teacher, in addition to giving instruction in the subject-matter of his particular department, also instructs the pupil teachers in the correct use of the spoken and written words that are necessary to express the thoughts that are aroused by the study of the respective subjects.

The school day is divided into three parts—(a) 9 to 10.30, (b) 10.45 to 12, (c) 12.30 to 2. Each pupil teacher spends one-third of the day in the training school, where he takes charge of a class under the supervision of the training teacher. The remaining two-thirds of the day are devoted to the study of academic subjects.

TRAINING SCHOOL.

There are seven rooms and five grades in the training school. Each grade is in charge of a teacher specially trained for the work. The total enrollment for the spring term of this year was 286. This number is made up of the following nationalities:

Nationality.	Boys.	Girls.	Nationality.	Boys.	Girls.
Hawaiians.....	11	29	Scandinavians.....	1	2
Part Hawaiians.....	14	24	Japanese.....	40	14
Americans.....	4	7	Chinese.....	14	20
British.....	3	1	Porto Rican.....	1	.....
German.....	4	1	Other foreigners.....	2	4
Portuguese.....	38	52			

An effort has been made to have representatives of as many nationalities as possible in the training school.

As already stated, each training pupil has charge of a room for one-third of each day of the school year. This charge implies the arrangement of the subject-matter, the outlining of lesson plans, the care of the school property, and the supervision of the school grounds. In this way the pupils are prepared to take full charge of any school to which they may be appointed.

The training teachers have the general supervision of the room. They direct the pupils in the arrangement of the subject-matter, suggest the method of presentation, correct the lesson plans, and keep the record of the ability of the pupils to teach.

HIGH SCHOOL.

This institution is carried on by a corps of 7 teachers, and contains 75 pupils, who are going through the usual high school course. Attached to the high school is a grammar school in charge of 5 teachers and having an enrollment of 203 pupils. To this has been added for the ensuing term an additional room which will contain about 60 pupils. The graduates from the high school pass straight to various universities and colleges on the mainland, and acquit themselves as well as pupils of the same class who are educated at Oahu College, which is an independent establishment carrying on the higher education. High school studies are taught in some of the older classes of the large country schools, but Honolulu at present contains the only high school carried out on a regular course and giving a diploma at the end of the period of study.

The nationality of the pupils in the high school is a matter of interest. There are 9 part Hawaiians, 41 Americans, 11 British, 5 German, 1 Portuguese, 4 Japanese, 2 Chinese, and 2 foreigners of unclassified nationalities. The teachers are all Americans, save the teacher of foreign language, who is a Scandinavian.

In the grammar-school attachment nationalities are as follows:

Hawaiians.....	2	Portuguese.....	20
Part Hawaiians.....	41	Scandinavians.....	4
Americans.....	77	Japanese.....	5
British.....	31	Chinese.....	4
Germans.....	16	Other foreigners.....	3

The total number of boys in the high school is 29; girls, 46. In the grammar-school attachment there are 80 boys and 123 girls. The teachers in the latter school are all Americans.

LAHAINALUNA.

The history of this establishment has already been dwelt upon. During its long career it has had many ups and downs, but it seems now to have taken an upward

course. The idea of the school is that there should be higher education combined with industrial training. The boys board and sleep at the school, and in a large measure raise their own food, though not entirely. There are 4 teachers in charge, all of whom assist in the industrial work as well as in the work of the schoolroom.

The present enrollment is 45, of whom 32 are Hawaiians, 10 part Hawaiians, 2 Japanese, and 1 Chinese. Twenty-three boys are in the fourth year of the grammar course and 22 are in the high school course. Twenty-nine boys are engaged in agriculture and 22 are engaged in printing, carpentry, and other manual work.

The hours for work and for study are closely followed. A bell calls the boys at 5.45 a. m., and another at 6 o'clock is a signal for them to start to work. This work is either agricultural or in the shops for most of the boys, though a few have other duties as stewards, wagon boys, pig feeders, etc. At 7.30 this work is ended; at 8 breakfast is called, and at 8.30 classes begin. These continue until 12, 3 teachers hearing classes and 1 working in a shop. From 12.35 until 2.30 2 teachers are conducting recitations and 2 shopwork. At 3 o'clock the boys return to work similar to that of the morning and continue it until 5 o'clock. 5.30 is the supper hour, after which the boys are at liberty until 6.45. From 6.45 until 8.15 they study together, a teacher being present each evening. At 9 o'clock a bell gives the signal for all boys to go to their rooms.

The entire morning and afternoon working time of the boys is seventeen and one-half hours per week. Those who do agricultural work, however, have to use four hours of this time for cleaning taro and pounding poi, and four hours more for collecting wood to cook the taro, which very materially lessens their time for other work.

The food supplied the boys is simple, being poi and fresh beef three times a week, sweet potatoes in season, bread and coffee once a week (Sunday morning). One of the boys is the baker. Besides what food has been mentioned, each boy supplies himself with dried fish, and this completes the regular bill of fare. In the matter of life in the dormitories, the boys are given a large degree of freedom, the rooms being inspected often enough to see that they are kept clean and orderly, and the furniture cared for, but no teacher remaining in them over night.

BOYS' REFORMATORY SCHOOL.

Under the Hawaiian system the reformatory school for boys is under the charge of the department of education, and before the coming year is completed there will be most probably an industrial school for girls ready. At present the boys' school is in Honolulu, but during the next few months it will be moved to a tract of land at the north end of the island, and it will become possible to give the boys thorough training in agriculture, farming, fishing, and dairy work. The present boys' reform school buildings will be used for the industrial schools for girls.

On November 1 of last year there was a change of management, and since that date there has been a considerable increase in the establishment. On November 1 there were 47 boys on the muster roll.

Of these 5 boys were in jail for escaping from the school, and 1 had escaped and was not yet captured, so that there were in school at that time 41 boys. Since that date 37 boys have been committed and 21 boys released, leaving on the muster roll at this date 63 boys. Of this number there are: In school, 60; in prison, 2; in Queen's Hospital, 1; total, 63.

Nationality of boys.

Hawaiians	34	Americans (colored)	2
Part Hawaiians	7	American (white)	1
Portuguese	9		
Porto Ricans	10	Total	63

Statement of offenses for which the boys in the school were committed.

Assault and battery	1	Malicious mischief	2
Larceny (second degree)	19	Disobedience to parents	4
Truancy	27	Trespass	1
Vagrancy	5		
Common nuisance	1	Total	63
Burglary	3		

Nationality and offenses.

Nationality.	Truancy.	Disobedience to parents.	Larceny.	Vagrancy.	Malignant mischief.	Burglary.	Common nuisance.	Assault and battery.	Trespass.	Total.
Hawaiians.....	18	3	6	1	.....	3	1	1	1	34
Part Hawaiians.....	4	1	2	.....	.....	.....	.....	.....	.....	7
Portuguese.....	2	.....	5	.....	2	.....	.....	.....	.....	9
Porto Ricans.....	3	.....	3	4	.....	.....	.....	.....	.....	10
Americans (colored).....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
American (white).....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
Total.....	27	4	19	5	2	3	1	1	1	63

Daily programme.

5 a. m.—Rise; arrange bedclothing; prayer.

5 to 7 a. m.—Cook breakfast; sweep rooms; clean yard, etc.

7 to 7.30 a. m.—Breakfast.

7.30 to 8.30 a. m.—Wash dishes, dining hall, etc.; work.

8.30 to 9 a. m.—Bathe; change clothing; make beds.

9 to 12 m.—In school.

12 to 1 p. m.—Dinner; clean up dishes and dining hall; play.

1 to 2 p. m.—In school and knife workshop.

1 to 4 p. m.—Boys in carpenter shop.

2 to 4 p. m.—Work.

4 to 4.15 p. m.—Clean yard; water plants.

4.15 to 5.15 p. m.—Play; bathe and change clothing.

5.15 to 5.45 p. m.—Supper.

5.45 to 6.30 p. m.—Wash dishes; sweep dining hall.

6.30 to 7.30 p. m.—Study hour; singing; reports of conduct.

7.30.—Retire.

NOTE.—When the days are shorter there is some change in these hours. Saturday is a half holiday.

Bill of fare—inmates' dining hall.

	Breakfast.	Dinner.	Supper.
Sunday.....	Rice and sugar, coffee and medium bread (alternately).	Beef, sweet potatoes, bread, bananas, vegetables.	Tea and medium bread or rice and sugar.
Monday.....	Rice and sugar.....	Beef, bread, poi, vegetables.	Poi and salmon.
Tuesday.....	do.....	do.....	Do.
Wednesday.....	do.....	Same as Sunday.....	Do.
Thursday.....	do.....	Same as Monday.....	Tea and bread.
Friday.....	do.....	do.....	Poi and salmon.
Saturday.....	do.....	do.....	Do.

On important holidays buns, cake, or pudding is served.

AGRICULTURE.

Though the grounds are limited and the soil very poor, by carrying soil and using manure a crop of vegetables has been raised and another crop planted. Small quantities of beans, corn, cabbage, tomatoes, and sweet potatoes have been raised. This garden, besides the planting of a hedge, cultivation of flowers, ferns, etc., is all the agricultural work practicable under the present conditions.

CARPENTRY.

Five boys work in the carpenter shop from 1 to 4 every afternoon except Saturday and Sunday. The instructor is here only during those hours, so that it is not possible for him to take charge of more than one class.

Since the 1st of November last the following articles have been made in the shop: 7 teachers' desks, 3 wardrobe boxes, 2 bookcases, 1 screen frame, 1 curtain pole, 1 typewriter table, 1 bureau, 6 sewing chests, 1 sand table, 22 screens for windows, 2 screen doors.

Besides the work done in the shop the boys have built and repaired fences, repaired and painted buildings, and done carpenter work for the Kaiulani school.

KNIFE WORK.

Fifteen boys are in the knife workshop under the instruction of one of the guards from 1 to 2 p. m. on working days. They have made clothespins, paper knives, checkerboards, bread boards, brackets, and picture frames. For this work such lumber has been used as could be picked up, viz, kerosene cases, cigar boxes, etc.

SEWING.

Two boys are employed in the sewing room making sheets, mattresses, shirts, pants, nightshirts, pillowcases, etc. On Monday afternoons all the boys have practice in sewing, mending their clothes, sewing on buttons, etc.

MAINTENANCE.

The present appropriation of \$2,750 per year for the general expenses of this school, including food, clothing, fuel, light, material, medical attendance, etc., is altogether inadequate for the support of the present number of boys. Two hundred and twenty-nine dollars a month, or \$3.63 for each boy, is very much lower than is expended in any other part of the States in similar institutions. In the Boston parental school the cost per boy per week is \$3.68. In the Indiana reform school, where there are over 500 boys, the cost per capita is about \$10 per month. Here, where food supply and material of all kinds is much higher than in the East, there should be a much more liberal appropriation for this school. It is to be hoped that after the school has been moved to the farm at Waialea that it will soon be self-supporting, but that will take two or three years.

CASH ACCOUNTS.

Receipts:		
Cash on hand, Nov. 1, 1901	.....	\$7. 45
Cash received for articles made	.....	148. 45
Total	.....	<u>155. 90</u>
Expenditures:		
Paid for material, supplies, etc.	.....	154. 71
Balance on hand	.....	1. 19
Total	.....	<u>155. 90</u>

EXPENDITURES OF THE DEPARTMENT OF PUBLIC INSTRUCTION.

Statement of appropriations, disbursements, and balances remaining, June 30, 1902.

	Appropriations.	Disbursements.	Balances.
Salaries and pay rolls	\$652, 862. 50	\$317, 429. 93	\$335, 432. 57
Current expenses	202, 525. 00	60, 123. 66	142, 401. 34
Total	855, 387. 50	377, 553. 59	477, 833. 91

BOARD OF HEALTH.

PURE FOOD, DRINK, AND MEDICINE.

The report for the past year of the food commissioner and analyst to the board of health shows a diligent inspection throughout the year of foods, drinks, and medicines offered for sale in Honolulu.

Samples of milk have been taken from milk wagons on the street daily with the exception of Sundays and holidays. Of these, 122, representing 22 dairies, were below standard, as were also 10 taken from restaurants and 4 from individuals.

"The average of the analyses of samples of milk taken at dairies was found to be: By dairies, total solids, 12.27; butter fat, 3.62 per cent. By number of cows, total solids, 12.36; butter fat, 3.74 per cent. A similar agreement between these two averages has been found in former years." (Report of food commissioner and analyst.)

Twenty-eight samples of drugs were examined, of which 13 were adulterated or below standard.

One hundred and seventy-six samples of food besides milk were examined, of which 56 were adulterated or below standard.

Six cases have been prosecuted—3 for sale of adulterated milk, 2 for sale of adulterated coffee, and 1 for sale of adulterated sausage. Convictions were obtained in all but the last. These, with 3 convictions of cases begun the year before, make 8 convictions during the year. One defendant was fined \$100 and sentenced to thirty days' imprisonment, 1 was fined \$100, 3 were fined \$50 each, and 3 \$25 each.

Sanitary inspection of Honolulu.

Major and minor nuisances ordered abated.....	32, 949
Major and minor nuisances abated.....	27, 410
Examinations for restaurant licenses.....	130
Complaints filed.....	40
Total number of inspections.....	93, 408

Sanitary inspection of Hilo.

Major and minor nuisances ordered abated.....	1, 443
Major and minor nuisances abated.....	1, 438
Complaints filed.....	9
Total number of inspections.....	6, 039

Vital statistics.

Marriages	1, 314
Births	2, 346
Deaths, males	1, 770
Deaths, females	976
Annual death rate per 1,000 of population.....	18. 3
Annual death rate per 1,000 of population of Honolulu.....	25. 59

LEPROSY.

The policy of segregation of lepers was adopted by the enactment of special statutes with this object in view in 1865. The leper settlement on the island of Molokai was established in the year 1866, during which year 141 patients were sent there.

The policy of segregation was loosely carried out for a number of years after the establishment of the settlement. During the first seven years the patients admitted averaged 114 per annum, and the largest number admitted in any one year was 183. In 1873 a stricter enforcement of the law was carried out, and 487 patients were sent to the settlement. Thereafter until 1887 the law of segregation was only partially enforced and the number of admissions during those years averaged 141 per annum, and the largest number admitted in any one year was 301.

Since 1887 the law has been vigilantly carried out. The number of admissions in 1888 was 579; in 1889, 308; and in 1890, 202; and from that year to the present time the admissions have decreased in number, though not regularly from year to year; but taking the twelve years beginning with 1890 and ending with 1901, in sections of three years each, we find the number of admissions to be as follows:

1890 to 1892, inclusive	454
1893 to 1895, inclusive	445
1896 to 1898, inclusive	350
1899 to 1901, inclusive	254

From these figures it would appear that with strict segregation the disease has steadily diminished, while, without strict segregation, it shows a tendency to spread.

The following table gives the average number of patients at the settlement for three periods of ten years each, with the average death rate for the same periods:

	Average number of patients.	Average number of deaths.	Death rate.
			<i>Per cent.</i>
1871 to 1880, inclusive	648	135.4	20.9
1881 to 1890, inclusive	823.5	144	17.5
1891 to 1900, inclusive	1,096	134.5	12.3

These figures show a marked decrease of the death rate for the last decade, which is undoubtedly largely due to a general improvement of conditions at the settlement pertaining to comforts of life and care of the sick.

The number of patients at the settlement at the end of 1901 was 942, and on the 30th of June, 1902, 915.

During the year ending June 30, 1902, 132 persons have been examined, of which number 83 were found to have the disease, 31 were suspicious cases, and 17 were discharged.

The following tables give their nationality, sex, and age:

Nationalities.

Hawaiians	76	Spanish	1
Part Hawaiians	42	Porto Rican	1
Chinese	7	South Sea Islander	1
Japanese	3		
Portuguese	1	Total	132

Sex.

Males	85
Females	47
Total	132

Ages.

Under 10 years	6	50 to 60 years	9
10 to 20 years	49	60 to 70 years	7
20 to 30 years	31	Over 70 years	1
30 to 40 years	21		
40 to 50 years	8	Total	132

Expenses of the board of health.

	Appropriation.	Drawn.	Balance.
Salary of executive officer, secretary, etc	\$19,000.00	\$9,432.25	\$9,567.75
Pay of government physicians	40,560.00	20,010.38	20,549.62
Health inspectors, etc.	135,246.00	56,130.55	79,115.45
General expenses, support of lepers, hospitals, etc.	426,400.00	178,571.54	247,828.46
Totals	621,206.00	264,144.72	357,061.28

DEPARTMENT OF THE ATTORNEY-GENERAL.

The employees of the attorney-general's department number 315, of whom 228 are Hawaiians, the remaining 87 being mainly Americans.

The appropriations for the support of the department for the biennial period from June 30, 1901, to July 1, 1903, aggregated \$620,719.95, of which \$315,525.23 have been drawn on account of the first half of such period, leaving a balance of \$305,194.72 for the second half.

The high sheriff reports that an electrical police-alarm system, which has been recently installed in Honolulu at a cost of \$20,000, has added much to the effectiveness of the police force of that city.

He also reports a decrease in the number of arrests in Honolulu for all offenses for the past year over the year before of 323, and that the arrests for drunkenness had fallen off, as compared to the previous year, by 728. This decrease in the number of arrests for drunkenness, the high sheriff attributes to the policy of the government of issuing a considerable number of licenses for the sale of beer only. These licenses having been recently declared unconstitutional by the local federal court, a further opportunity will be afforded of studying their influence on drunkenness.

The attorney-general, in explaining a deficit in the pro rata expenditures of the appropriation for "incidentals—civil and criminal expenses," makes the following brief reference to the work in his department, as affected by the new political conditions. He says:

This appropriation was reduced by the last legislature, which reduction, in the light of subsequent and unforeseen events, has proved to be unfortunate. The court and opinion work of the department has doubled since the days of the Republic. Grave constitutional questions have arisen; extended sessions and special sessions of court have become the rule. During a great part of the past year two terms of the circuit court have been running at the same time. In June there were three—one in Hilo, one in Wailuku, and one in Honolulu. The terms have not only been much more numerous, but also much longer than formerly. The transition, habeas corpus, and fishing-right cases—exceptional matters—have taxed the department severely in both time and money. I have employed outside counsel when imperatively necessary, and have spent during the year \$1,509.25 therefor. If I had not done so important interests of the Territory must have gone by default. These and other extraordinary demands fall mainly upon the appropriation for incidentals—civil and criminal expenses.

REPORT OF GOVERNOR OF THE TERRITORY OF HAWAII. 53

Number of arrests made throughout the Territory of Hawaii, and disposition of same in the district courts, for the year ending June 30, A. D. 1902.

NATIONALITY AND SEX.

	Total arrests.	Sex.		Nationality.				
		Male.	Female.	Hawaiian.	English.	American.	German.	French.
Oahu.....	5,856	5,635	221	1,350	109	875	119	14
Hawaii.....	2,697	2,445	252	582	8	141	9	.....
Maui and Molokai.....	1,559	1,508	51	412	12	40	5	.....
Kauai.....	808	771	37	141	2	22	2	.....
Total.....	10,920	10,359	561	2,585	181	1,078	135	14

	Nationality.							Discharged.	Convicted.
	Portuguese.	Chinese.	Japanese.	Porto Ricans.	South Sea Islanders.	Spanish.	Others.		
Oahu.....	380	1,434	1,152	154	2	26	241	1,309	4,547
Hawaii.....	217	513	850	241	.....	.....	36	808	1,889
Maui and Molokai.....	70	380	558	76	6	.....	.....	428	1,181
Kauai.....	25	168	330	109	5	.....	4	223	565
Total.....	692	2,495	2,890	580	13	26	281	2,768	8,152

AMOUNT OF FINES AND COSTS IMPOSED AND PAID.

Islands.	Arrests.	Convicted.	Discharged.	Fines.	Costs.	Total amount imposed.	Ball forfeited.	Fines and costs paid.
Oahu.....	5,856	4,547	1,309	\$27,021.00	\$4,849.55	\$31,870.55	\$8,149.00	\$20,122.25
Hawaii.....	2,697	1,889	808	10,437.80	1,575.05	12,012.85	8,741.00	5,382.30
Maui and Molokai.....	1,559	1,131	428	6,667.00	270.35	6,947.35	4,508.00	4,121.25
Kauai.....	808	585	223	4,131.20	585.60	4,666.80	3,233.00	2,194.60
Total.....	10,920	8,152	2,768	48,267.00	7,230.55	55,497.55	24,626.00	31,820.40

GAMBLING.

Islands.	Total arrests.	Sex.		Nationality.					
		Male.	Female.	Hawaiians.	Americans.	Portuguese.	Chinese.	Japanese.	Porto Ricans.
Oahu.....	1,721	1,713	8	184	37	34	1,044	410	6
Hawaii.....	589	565	24	68	14	12	326	166	2
Maui and Molokai.....	650	646	4	65	5	13	262	304	1
Kauai.....	289	288	1	10	.....	.....	114	151	14
Total.....	3,249	3,212	37	327	56	59	1,746	1,031	22

Islands.	Discharged.	Convicted.	Imposed.		Total amount imposed.	Fines and costs paid.	Ball forfeited.
			Fines.	Costs.			
Oahu.....	371	1,350	\$7,162.00	\$807.95	\$7,969.95	\$7,128.15	\$3,561.00
Hawaii.....	114	475	2,549.00	85.45	2,634.45	816.25	2,808.00
Maui and Molokai.....	143	507	1,124.00	33.10	1,157.10	788.10	2,698.00
Kauai.....	48	241	280.00	34.40	314.40	252.00	2,105.00
Total.....	676	2,573	11,115.00	960.90	12,075.90	8,484.50	11,152.00

54 REPORT OF GOVERNOR OF THE TERRITORY OF HAWAII.

Number of arrests made throughout the Territory of Hawaii, and disposition of same in the district courts, for the year ending June 30, A. D. 1902—Continued.

CASES OF SELLING SPIRITUOUS LIQUORS WITHOUT A LICENSE.

Islands.	Total arrests.	Sex.		Nationality.						
		Male.	Female.	Hawaiians.	Americans.	Portuguese.	Chinese.	Japanese.	Porto Ricans.	Others.
Oahu.....	85	81	4	16	4	15	13	21	1	15
Hawaii.....	88	72	16	1	3	3	35	44	.....	2
MauI and Molokai.....	47	45	2	2	.....	1	21	18	.....	5
Kauai.....	12	11	1	2	.....	.....	8	2	.....	.....
Total.....	232	209	23	21	7	19	77	85	1	22

Islands.	Discharged.	Convicted.	Imposed.		Total amount imposed.	Fines and costs paid.	Bail forfeited.
			Fines.	Costs.			
Oahu.....	37	48	\$6,030.00	\$102.50	\$6,132.50	\$2,893.10	.....
Hawaii.....	48	40	3,250.00	209.60	3,459.60	1,261.50	\$1,300.00
MauI and Molokai.....	11	36	3,150.00	42.20	3,192.20	1,525.50	725.00
Kauai.....	8	4	600.00	10.00	610.00	110.30	100.00
Total.....	104	128	13,030.00	364.30	13,394.30	5,790.40	2,125.00

DRUNKENNESS.

Islands.	Total arrests.	Sex.		Nationality.						
		Male.	Female.	Hawaiians.	Americans.	Portuguese.	Chinese.	Japanese.	Porto Ricans.	Others.
Oahu.....	1,330	1,300	30	423	488	72	3	103	16	225
Hawaii.....	355	329	26	195	53	36	7	38	20	6
MauI and Molokai.....	158	156	2	95	16	7	.....	30	2	8
Kauai.....	47	46	1	13	4	2	.....	25	1	2
Total.....	1,890	1,831	59	726	561	117	10	196	39	241

Islands.	Discharged.	Convicted.	Imposed.		Total amount imposed.	Fines and costs paid.	Bail forfeited.
			Fines.	Costs.			
Oahu.....	26	1,304	\$2,338.00	\$1,097.30	\$3,435.30	\$2,700.00	\$1,352.00
Hawaii.....	49	306	579.00	156.85	735.85	439.30	1,068.00
MauI and Molokai.....	13	145	232.00	23.00	255.00	214.00	294.00
Kauai.....	3	44	109.00	30.90	139.90	132.30	88.00
Total.....	91	1,799	3,258.00	1,308.05	4,566.05	3,485.60	2,802.00

Arrests made throughout the city of Honolulu, and disposition of the same in the district courts, for the two years ending June 30, A. D. 1901 and 1902.

GAMBLING.

	Total arrests.	Sex.		Nationality.							Discharged.	Convicted.
		Male.	Female.	Hawaiians.	English.	Americans.	Portuguese.	Chinese.	Japanese.	Porto Ricans.		
1900.												
July.....	13	13	.....	2	.....	.....	3	6	2	.....	3	10
August.....	30	30	.....	11	2	.....	.....	2	15	.....	13	17
September.....	59	59	.....	22	.....	1	1	35	.....	.....	6	53
October.....	51	51	.....	6	.....	6	3	33	3	.....	3	48
November.....	62	62	.....	2	.....	1	.....	45	13	1	3	59
December.....	77	77	.....	14	.....	.....	4	59	.....	.....	2	75

Arrests made throughout the city of Honolulu, and disposition of the same in the district courts, for the two years ending June 30, A. D. 1901 and 1902—Continued.

GAMBLING—Continued.

	Total arrests.	Sex.		Nationality.								Discharged.	Convicted.
		Male.	Female.	Hawaiians.	English.	Americans.	Portuguese.	Chinese.	Japanese.	Porto Ricans.	Others.		
1901.													
January	119	119		9		3	1	104	2			9	110
February	135	135		37		1	1	69	27			57	78
March	86	81	5	27		1	2	34	21			37	49
April	93	91	2	18		2	8	34	26		1	5	18
May	79	79		11		7	1	47	11			2	16
June	154	153	1	23		10	3	89	26		3	40	114
Total	958	950	8	182	2	32	27	557	146	....	12	207	751
1901.													
July	131	130	1	20		7	8	86	8		2	27	104
August	115	115		20		14	7	73			1	45	70
September	65	64	1	8			3	45	9			3	62
October	124	121	3	15		1	2	76	30			36	88
November	114	114		25	1	2	8	61	17			31	83
December	45	45		8			2	29	5		1	24	21
1902.													
January	70	70		11				55	4			36	34
February	75	75		30		1	2	38	4			37	38
March	9	9		1			1	6	1				9
April	86	86		10		1		26	49			14	72
May	73	73		4	1	9		42	17			36	37
June	278	278						268	10			28	250
Total	1,185	1,180	5	152	2	35	33	805	154	....	4	317	888
First 12 months	958	950	8	182	2	32	27	557	146	....	12	207	751
Total 2 years	2,143	2,130	13	334	4	67	60	1,362	300	....	16	524	1,619

SELLING SPIRITUOUS LIQUOR WITHOUT A LICENSE.

1900.	8	8	...	...	...	3	1	...	1	...	3	1	7
August	...	...	...	...	...	...	...	...	...	...	...	...	...
September	2	2	...	...	...	2	...	...	...	...	...	1	1
October	5	4	1	1	...	...	...	3	...	...	1	2	3
November	3	3	...	2	...	...	1	...	...	...	...	...	3
December	10	10	...	3	...	...	6	...	...	...	1	4	6
1901.	1	1	...	1	...	...	...	...	...	...	...	...	1
February	...	...	...	...	...	...	...	...	...	...	...	...	...
March	6	6	...	...	...	...	6	...	...	...	...	5	1
April	...	...	...	...	...	...	...	...	...	...	...	...	...
May	6	5	1	2	...	1	1	...	2	...	...	2	4
June	27	20	7	17	...	...	5	2	...	2	10	17	...
Total	68	59	9	26	...	6	16	8	5	...	7	25	43
1901.	5	5	...	...	...	1	1	1	...	...	2	2	3
August	28	24	4	3	...	1	7	10	...	...	7	11	17
September	3	3	...	...	...	...	2	...	...	...	1	2	1
October	17	17	...	3	1	1	5	3	...	1	3	3	14
November	5	5	...	5	...	...	...	...	...	...	...	3	2
December	2	2	...	1	...	1	...	...	...	...	...	2	...
1902.	3	3	...	...	...	...	...	...	3	...	...	2	1
February	...	...	...	...	...	...	...	...	...	...	...	...	...
March	...	...	...	...	...	...	...	...	...	...	...	...	...
April	3	3	...	3	...	...	...	...	...	...	...	1	2
May	...	...	...	...	...	...	...	...	...	...	...	...	...
June	1	1	...	...	...	...	...	1	...	...	...	...	1
Total	67	63	4	15	1	4	15	4	14	5	13	26	41
First 12 months	68	59	9	26	...	6	16	8	5	...	7	25	43
Total 2 years	135	122	13	41	1	10	31	12	19	1	20	51	84

56 REPORT OF GOVERNOR OF THE TERRITORY OF HAWAII.

Arrests made throughout the city of Honolulu, and disposition of the same in the district courts, for the two years ending June 30, A. D. 1901 and 1902—Continued.

DRUNKENNESS.

	Total arrests.	Sex.		Nationality.								Discharged.	Convicted.
		Male.	Female.	Hawaiians.	English.	Americans.	Portuguese.	Chinese.	Japanese.	Porto Ricans.	Others.		
1900.													
July	140	136	4	36	7	63	8	.....	3	.....	23	4	136
August	163	158	5	53	12	56	10	.....	1	.....	31	5	158
September	179	177	2	49	14	64	8	.....	10	.....	33	1	178
October	175	168	7	64	14	65	8	.....	7	.....	17	4	171
November	114	113	1	48	8	34	2	.....	6	.....	16	3	111
December	183	182	1	66	14	68	6	.....	3	.....	26	5	178
1901.													
January	144	142	2	48	2	64	6	.....	9	.....	15	6	138
February	181	179	2	61	3	80	5	.....	6	.....	26	6	175
March	178	177	1	65	8	71	6	.....	1	.....	22	3	175
April	176	172	4	69	4	69	4	.....	8	.....	22	4	172
May	149	147	2	50	12	63	5	.....	1	.....	15	3	146
June	196	193	3	49	12	96	9	.....	7	.....	22	7	189
Total	1,978	1,944	34	658	110	793	77	3	68	1	268	51	1,927
1901.													
July	151	150	1	52	7	61	8	.....	8	.....	15	2	149
August	95	93	2	20	1	52	4	.....	1	.....	8	2	93
September	110	106	4	42	4	34	7	.....	13	.....	10	1	109
October	96	98	3	44	3	28	4	.....	2	.....	14	1	95
November	81	77	4	28	.....	29	1	.....	5	.....	17	.....	81
December	107	106	1	41	2	43	6	.....	3	.....	9	2	105
1902.													
January	71	69	2	18	3	37	2	.....	3	.....	7	2	69
February	111	107	4	29	5	49	7	.....	3	.....	18	6	105
March	110	108	2	33	4	47	6	.....	3	.....	15	1	109
April	120	118	2	29	14	37	10	.....	7	.....	23	5	115
May	112	111	1	28	10	50	10	.....	3	.....	11	1	111
June	86	86	.....	30	7	20	6	.....	5	.....	18	1	85
Total	1,250	1,224	26	394	60	487	71	3	62	8	165	24	1,226
First 12 months	1,978	1,944	34	658	110	793	77	3	68	1	268	51	1,927
Total 2 years	3,228	3,168	60	1,052	170	1,280	148	6	130	9	433	75	3,153

MILITARY.

Under the laws of the republic of Hawaii, providing for the National Guard, and which were continued in force by the organic act, one regiment was organized under the republic, which force has been continued to the present time.

The following statement taken from the annual report of the colonel commanding—Col. J. W. Jones—presents the condition of the regiment and its operations for the year ending June 30, 1902.

Of the 9 companies making up the regiment, Company C is Portuguese; Company D is about two-thirds Hawaiian and is located at Hilo, island of Hawaii; Companies E and G are Hawaiian; Company H is mainly Hawaiian; Company I is about one-half Hawaiian and is located at Wailuku, island of Maui. The rest of the officers and enlisted men are mainly Americans, with a representation of Germans, British, and perhaps other nationalities.

Strength of the First Regiment National Guard, Hawaii.

Field and staff officers	12
Noncommissioned staff officers	6
Officers and enlisted men:	
Company A	60
Company B	62
Company C	64
Company D	66
Company E	61
Company F	67
Company G	60
Company H	54
Company I	35
Hospital Corps	14
Total	561

EFFICIENCY.

The exercises and evolutions practiced are those prescribed in the Drill Regulations and Manual of Guard Duty adopted by the United States Army. The work for the year has been as follows:

Regimental, battalion, and company drills; parades, practice marches, field exercises with ball cartridge; encampments; competitive drill; muster and inspection, and target practice.

Number of drills, etc., from July 1 to December 31, 1901	183
Number of drills, etc., from January 1 to June 30, 1902	277
Total	460

	Number.	Possible.
Attendance from July 1 to December 31, 1901	5,993	9,898
Attendance from January 1 to June 30, 1902	10,853	15,549
Total	16,846	25,387

Percentage of attendance, 66.8 per cent.

The percentages awarded by United States Army officers acting as judges to companies taking part in the competitive drill on May 10, 1902, are as follows: Company F, 98 per cent; Company G, 93 per cent; Company E, 95 per cent; Company B, 90 per cent; Company A, 75 per cent.

The firing during the field exercises was at a position outlined by breastworks and was very accurate and effective.

The following is the record of medals won during the semiannual shoots for 1901-2, at 200 yards, offhand, 10 rounds per man: Gold (for 45 or better), 9; silver (for 40 or better), 45; bronze (for 35 or better), 98; total, 152.

There have been received from the United States War Department 18 cases, 1 bundle, and 3 packages quartermaster stores; 69 cases ordnance and ordnance stores.

FIRE CLAIMS COMMISSION.

The fire claims commission of five persons, appointed under the authority of act 15 of the session laws of 1901, being "an act to provide for the ascertainment and payment of all claims which may be made by persons whose property was destroyed by fire in the years A. D. 1899 and 1900, under orders of the board of health," began to take evidence in proof of such claims in May, 1901. It continued in session until June, 1902, with the exception of three months taken for giving the clerk an opportunity of keeping up with his work of entering claims adjudicated by the commission.

The number of claims filed was 6,748, amounting in the aggregate to \$3,175,132.90. All of these claims were heard and adjudicated, the aggregate of the awards amounting to \$1,473,173.

The following table gives the number of claims of, aggregate amounts claimed by, and aggregate amounts awarded to the different classes of claimants:

Nationality.	Claims.	Amount claimed.	Amount awarded.
Japanese	2,574	\$639,742.99	\$333,730.10
Chinese	3,728	1,761,112.04	845,480.80
Hawaiians	278	342,526.84	144,242.50
Portuguese	19	81,658.47	24,117.45
Other nationalities	128	272,829.76	125,602.15
Fire insurance companies	21	77,262.80	.....
Total	6,748	3,175,132.90	1,473,173.00

The legislature by its said act 15 appropriated \$1,500,000 for the payment of such claims, limiting the expenditure to \$500,000 per annum, but providing no means by which the money appropriated might be obtained, except that it set apart the amount due the Territory from the Federal Government for advances made by the Territory on account of interest on that part of the Hawaiian debt assumed by the United States as a special fund for a partial payment of such claims. Such advances amount to \$151,640.79, and have not as yet been returned to the Territory by the Federal Government.

Under the organic act the legislature is without authority to authorize a loan for the payment of such claims, and should such legislation be enacted the President of the United States is without authority to confirm the same.

The legislature appropriated \$17,400 for the expenses of the commission, dividing the same into specific items, such as pay of commissioners, counsel for the Territory, clerk, stenographer, interpreters, bailiff, incidentals, and government witnesses.

This appropriation is accounted for as follows: Appropriation, \$17,400; drawn, \$14,982; balance, \$2,418.

The appropriation was insufficient for the work of the commission; but the unexpended balance of \$2,418 could not be used, as it represented specific items of the appropriation, such as pay of government witnesses and pay of interpreters, which items did not exhaust the amounts appropriated for them.

In this emergency, as an indefinite adjournment of the court would have been extremely unfortunate, a number of business houses of Honolulu advanced \$4,000 to the commission and the work went on. Later, as still more money was required, the commission adopted a scale of fees for certificates of awards to be paid by those desiring such certificates. The following schedule of fees was adopted:

Certificates of award:

\$50 and under	\$0.25
\$100 and under .....	.50
\$500 and under	1.00
Over \$500	4.00

Enough was realized by these fees for further requirements and the reimbursement of the loan from the business houses, with interest. Before this was carried out, however, and since the close of the finan-

cial year, legal proceedings have been brought to test the legality of the action of the commission in charging such fees.

In the month of April last the Chamber of Commerce and the Merchants' Association of Honolulu passed a joint resolution favoring the payment by the Federal Government of the awards made by the fire claims commission, and authorized Mr. J. C. Pratt, a member of such commission, to proceed to Washington, as their representative, and present the same, and to urge the enactment of such legislation by Congress as should grant the relief suggested.

The Congress having this matter brought before it late in the session gave it such consideration as the pressure of other matters permitted, with the result that the Senate Committee on Pacific Islands and Porto Rico made a unanimous report recommending that an amendment be made to the House deficiency appropriation bill, appropriating \$1,000,000 for payment of a part of such awards, and authorizing the Territory of Hawaii, through the governor and secretary, to issue bonds in the sum of \$500,000 for payment of the balance. After reference of this report to the Senate Committee on Appropriations, and a favorable report by such committee, the amendment was passed without opposition by the Senate, but failed to pass the House.

A bill providing substantially the same relief as embodied in the Senate amendment was subsequently favorably reported by the chairman of the Senate Committee on Pacific Islands and Porto Rico.

Some kind of action by Congress is essential to the payment of the awards in question, inasmuch as the Territory can not furnish funds for the purpose except by borrowing, and borrowing for such an object is not permitted by the act organizing the Territory.

The efforts of the government of the Republic of Hawaii to suppress the plague epidemic were in the public interests of the United States. Such efforts cost \$720,488.07 and large unestimated losses to the business interests of the group. The Hawaiian Islands were at that time under the control and government of the President of the United States. Immediately subsequent to the suppression of the plague the act creating the Territory of Hawaii was enacted, whereby Hawaii lost its customs revenues, worth at that time \$1,200,000 per annum, or 38.7 per cent of its entire current revenues.

With these important reductions of the public income the Territory is unable to meet its current expenses without borrowing, much less will it be able to pay these awards, or any substantial portion of them, without prejudice to the general administration of its affairs.

It is nevertheless important upon every consideration that the awards be paid without delay, and I would recommend that the Federal Government assume the whole payment thereof.

WIRELESS TELEGRAPHY.

By the courtesy of the Interisland Telegraph Company, Limited, I am able to furnish the following information on this subject:

In March, 1901, this company opened communication between the islands of Oahu, Molokai, Lanai, Maui, and Hawaii. The service was at first unsatisfactory, but improved as the operators became more accustomed to the work. In July, however, the coherers began to wear out and the service eventually broke down.

There were serious difficulties in the way of procuring new coherers, but after many experiments the manager, Mr. Cross, succeeded in producing them here, and the company recommenced operations in June of this year, since which time the line has been in successful operation. As the system at present can not more than pay expenses, it is financially assisted by the business men of Honolulu, who recognize its vital importance to the business interests of the country.

The present stations are Waialua, Oahu, the westerly point of Molokai, Lanai, Lahaina, Maui, and Mahukonu, Hawaii.

The ocean distances telegraphed over are approximately as follows: Waialua to Molokai, 29 miles; Molokai to Lanai, 15 miles; Lanai to Lahaina, Maui, 8 miles; Lahaina to Mahukonu, Hawaii, 60 miles.

The weather in these ocean channels during the prevalence of the trade winds, which continue the greater part of the year, is characterized by winds of varying velocity, sometimes approaching to the quality of gales, occasional showers, and low-lying clouds. The ocean in the first and last of the channels mentioned is generally stormy.

Since the line has resumed operations, all messages transmitted reach their destination, though sometimes in a somewhat mutilated form.

RECOMMENDATIONS.

It is recommended:

That an expert forester be maintained in the Territory for a sufficient time to enable him, acting with the Territorial government, to organize and establish a system for the management, conservation, and development of Hawaiian forests;

That the payment of the full amount of the awards made by the fire claims commission be assumed by the United States;

Or, in the alternative, the Territory of Hawaii being under conditions differing from those of any other Territory of the United States, and carrying on at its own expense a system of light-houses, the dredging of harbors and the maintenance of buoys, duties usually performed by the Federal Government, and the expense of these enterprises, together with the payment of the aforementioned awards when taken with the loss of the tariff revenues formerly enjoyed by Hawaii amounting at the time of the inception of the Territory to about \$1,200,000, being too great for the Territory to assume, that the customs receipts collected at the ports of the Hawaiian Islands be paid to the treasury of the Territory;

That the payment of taxes for the year previous to a regular election for Delegate to Congress and senators and representatives of the local legislature, and before the end of such year, be made a prerequisite to registration for voting at such election, except as to such taxes as may be in litigation;

That a Federal building for the accommodation of the Federal court, post-office, and revenue officials be erected in Honolulu;

That a building or buildings for the accommodation of the Federal court, custom-house, and post-office be erected in Hilo;

That light-houses be erected at Honolulu Harbor, Oahu, Makapuu Point, Oahu, Kahului, Maui, Ouna, Kailua, Kawaihae, and Mahukonu, Hawaii; and Kalaeokalaau, Molokai; and that the Federal Government assume the management of all Hawaiian light-houses;

That the Federal Government assume the care of all Hawaiian harbors and the work of improving the same;

That a breakwater be constructed for the protection and improvement of Hilo Harbor, Hawaii;

That the Hawaiian silver coins be received in exchange for United States silver coins of like respective denominations;

That a limited immigration of Chinese laborers be permitted, conditioned upon their engaging in agricultural work for hire only during their stay in the Territory and subject to deportation at their own expense upon their ceasing to do so;

That legislation be enacted placing in the executive of the Territory authority to dispose of the waters belonging to the public lands, by lease or license;

That section 80 of the "act to provide a government for the Territory of Hawaii" be amended so that the governor may suspend any officer in regard to the removal of whom the advice and consent of the Senate is necessary, until the next succeeding session of the Senate, and may, except in case of the auditor, appoint a person to fill the office in question pro tem. until the matter of the removal of the suspended officer is settled, or may remove any of such officers.

Estimates for appropriations.

LIGHT-HOUSES.

Honolulu Harbor, Oahu	\$4, 000
Makapuu Point, Oahu	10, 000
Kahului, Maui	20, 000
Ouna, Hawaii	10, 000
Kailua, Hawaii	5, 000
Kawaihae, Hawaii	5, 000
Mahukonu, Hawaii	5, 000
Kalaekalaa, Molokai	5, 000
Maintenance of light-houses	14, 000

HARBOR IMPROVEMENTS.

Expense of widening channel, Honolulu Harbor, and dredging channel entrance and harbor to a depth of 30 feet low water (this item is in accord with United States War Department estimate)	250, 000
Maintenance of buoys	6, 000
New buoys	4, 000
Construction of breakwater at Hilo	750, 000

NEW BUILDINGS.

Hilo post-office	16, 000
Hilo custom-house	6, 000

Total 1, 106, 000

Respectfully submitted.

SANFORD B. DOLE,

Governor of the Territory of Hawaii.

The SECRETARY OF THE INTERIOR,

Washington, D. C.

55
7

REPORT

OF THE

GOVERNOR OF THE TERRITORY OF HAWAII

TO THE

SECRETARY OF THE INTERIOR

1 9 0 3

WASHINGTON
GOVERNMENT PRINTING OFFICE
1903

REPORT

OF THE

GOVERNOR OF THE TERRITORY OF HAWAII

TO THE

SECRETARY OF THE INTERIOR

1903

WASHINGTON
GOVERNMENT PRINTING OFFICE
1903

TABLE OF CONTENTS.

	Page.
Social conditions	7
Finances	8
Subdivision tax receipts	11
Property subject to ad valorem taxation	11
Bonded debt	11
Appropriations, legislature 1903	12
Loan appropriations, legislature 1903	12
Subsidies	12
Pensions	12
Fire claims commission	12
Fire claims awards and cash	14
Appropriations for payment for claims	14
Chinese fund	14
Hawaiian coinage	17
Commerce	17
Chinese and Japanese immigration	22
Public works	22
Public survey	25
Meteorology	28
Public lands	29
Land settlement	32
Agriculture	34
Coffee	35
Pineapples	36
Sisal	38
Sugar	42
Forestry	43
Fertilizers	44
Labor	44
Second general election	46
Legislature	46
County act	48
Judiciary	52
Department of the attorney-general	55
Military	58
Drills	58
Target practice	59
Muster and inspection	59
Encampment	60
Ordinance report	63
Quartermaster report	64
Education	65
Enrollment	65
Teachers	67
Schools	69
Pupils	70
Industrial schools	72
Health	76
Insane asylum	77
Leprosy	77
Vital statistics	78
Fisheries	79
Corporations	80
Railway enterprise	80
Franchises	82
Recommendations	83
Estimates for appropriations	84

LETTER OF TRANSMITTAL

EXECUTIVE CHAMBER, TERRITORY OF HAWAII,
Honolulu, September 28, 1903.

SIR: In response to your letter of June 27, requesting me to forward to your Department a report of the affairs, progress, and development of Hawaii during the fiscal year ending June 30, 1903, I have the honor to transmit the following statement.

Very respectfully,

SANFORD B. DOLE,
Governor of the Territory of Hawaii.

THE SECRETARY OF THE INTERIOR,
Washington, D. C.

REPORT

OF THE

GOVERNOR OF THE TERRITORY OF HAWAII.

SOCIAL CONDITIONS.

The statistics of our schools and courts show that the population of the Territory is made up of the following races: Hawaiian, Portuguese, Japanese, Chinese, Scandinavian, Spanish, and Teuton, which includes British, German, and American.

The school children of the Hawaiian, Portuguese, Japanese, and Chinese races number 16,229, being an increase of 945 over the previous year. Almost all of the boys will be voting citizens when they reach voting age.

The school children of European descent other than Portuguese, and of American descent other than Porto Rican, number 1,505, an increase of 18 over the previous year.

At this rate, unless there should be a larger immigration of American settlers than now seems probable, the present numerical inferiority of those which may be classed as belonging to the Teutonic race as compared with the Hawaiians, will, in a few years, become a still greater inferiority as compared with the then American citizens of the Hawaiian, Portuguese, Japanese, and Chinese races.

This prospect emphasizes the importance of giving to all children who are American citizens a good common school education. The association of pupils of the different races with each other in school work and the recreations of the playground go far toward breaking down race prejudices and tends to prepare them for intelligent political action in the future.

There are many marriages between Hawaiian women and white men and a few between Hawaiian women and Chinamen. The offspring of both classes of marriages are an improvement, as a rule, on the pure Hawaiian, in thrift and business enterprise.

The Portuguese generally intermarry among themselves. The same is true with the Japanese.

Part Hawaiians as a class are increasing, and the rate of decrease of the pure Hawaiian appears to be a diminishing one.

Out of 9,967 arrests made during the past year 7,480 were from among Japanese, Chinese, and Hawaiians. The following table gives the population of these three classes in 1900, not including the few Chinese and Japanese American citizens, the whole number of arrests in each class and the number of arrests in each class for gambling, illicit sale of liquors, and drunkenness, respectively, with the respective percentages.

Nationality.	Census of 1900.	Arrests.	Per cent.	Arrests for gambling.	Per cent.	Arrests for illicit liquor selling.	Per cent.	Arrests for drunkenness.	Per cent.
Japanese	56,234	2,945	0.052	1,138	0.020	66	0.001	157	0.002
Hawaiian	29,799	2,235	.075	227	.007	16	.0005	650	.021
Chinese.....	27,741	2,300	.080	1,618	.058	70	.0025	3	.0001

The following additional table is given in regard to other nationalities, their respective numbers as parts of the population in 1900 being unavailable, owing to the system of classification of the census report:

Nationality.	Arrests.	Arrests for gambling.	Arrests for illicit selling of liquor.	Arrests for drunkenness.
American.....	684	29	9	343
Porto Rican.....	666	77	6	40
Portuguese.....	600	35	20	96
German.....	184			
British.....	81			
Spanish.....	24			
French.....	11			
South Sea Islanders.....	4			
Others.....	233	14	6	293

FINANCES.

Appropriations.

	Balance from appropriations on hand July 1, 1902.	Drawn during period from July 1, 1902, to June 30, 1903.	Unexpended balance on hand July 1, 1903.
Permanent settlements.....	\$8,500.00	\$8,500.00	
Office of the secretary of the Territory.....	25,579.58	20,110.15	\$5,469.43
Judiciary department.....	74,093.68	67,802.95	6,290.73
Department of the attorney-general.....	311,060.58	302,526.17	8,534.41
Department of the treasury.....	287,586.02	151,945.59	135,640.43
Department of public works.....	1,859,026.23	818,750.44	1,040,275.79
Department of public instruction.....	478,252.91	390,441.77	87,811.14
Commission of public lands.....	22,759.30	14,681.01	8,078.29
Commission of agriculture and forestry.....	20,399.00	13,967.64	6,431.36
Survey department.....	39,849.56	39,748.23	101.33
Board of health.....	358,314.98	302,529.40	55,785.58
Band.....	26,012.53	21,319.28	4,693.25
Military.....	10,875.34	10,068.51	806.83
Auditor.....	17,548.87	15,512.12	2,036.75
Fire claims commission.....	1,502,427.38	1,473,196.03	29,231.35
Legislature.....	24,223.28	24,213.17	10.11
Total.....	5,066,509.24	3,675,312.46	1,391,196.78

	Appropriations made by the Legislature of 1903 and available before July 1, 1903.	Drawn before July 1, 1903.	Unexpended balance July 1, 1903.
Office of the secretary of the Territory.....	\$30,126.50	\$12,857.34	\$17,269.16
Judiciary department.....	48,310.80	27,119.08	21,191.72
Department of the attorney-general.....	4,128.20	3,557.16	571.04
Department of the treasury.....	20,897.09	15,420.88	5,476.21
Department of public works.....	391,658.91	130,658.76	261,000.15
Department of public instruction.....	15,289.03	13,460.40	1,828.63
Commission of public lands.....	3,800.00	1,519.53	2,280.47
Commission of agriculture and forestry.....	10.49	10.49	
Board of health.....	30,502.08	20,616.01	9,886.07
Auditor.....	12,500.00		12,500.00
Legislature.....	91,500.00	79,776.58	11,723.42
Chinese fund.....	155,546.70	89,986.30	65,560.40
Total.....	804,242.80	394,982.53	409,260.27

Cash statement July 1, 1902, to June 30, 1903, current account.

RECEIPTS.

Cash on hand July 1, 1902		\$287, 131. 30
Tax bureau:		
Oahu collections	\$908, 964. 26	
Maui collections	189, 040. 90	
Hawaii collections	373, 864. 79	
Kauai collections	179, 153. 17	
		\$1, 651, 023. 12
Treasury collections:		
Licenses	142, 736. 25	
Realizations	26, 024. 99	
Revenue stamps	61, 095. 00	
Accrued interest bonds	776. 64	
		195, 260. 39
Public instruction:		
Book sales	5, 891. 10	
Rents	980. 50	
		6, 872. 10
Harbor master, Honolulu:		
Wharfage	40, 053. 38	
Towage	10. 00	
Pilotage	30, 242. 14	
		70, 305. 52
Public works office:		
Rents	49, 980. 37	
Realizations	12, 415. 53	
Land sales	6, 270. 56	
Sewerage	12, 643. 98	
Excavator	5, 752. 75	
Weights and measures	176. 75	
Honolulu market	14, 054. 95	
Garbage	6, 460. 65	
Land sales, interest	231. 39	
	107, 986. 93	
Less "not accounted for"	4, 982. 10	
		103, 004. 83
Fines and costs		68, 993. 75
Kerosene warehouse, Honolulu		5, 851. 45
Kerosene warehouse, Hilo		422. 86
Wharfage, Hilo		2, 438. 46
Honolulu waterworks		102, 841. 85
Hilo waterworks		6, 610. 25
Koloa waterworks		195. 00
Laupahoehoe waterworks		137. 15
Wailuku and Kahalui waterworks		4, 413. 80
Conveyance bureau		15, 347. 00
Land revenue		105, 078. 15
Land sales		17, 991. 23
Prison receipts		408. 60
Registry of brands		56. 00
Government realizations		21, 451. 44
Powder storage, Honolulu		1, 573. 77
Powder storage, Hilo		535. 35
Lahaina waterworks		1, 328. 95
Lahaina market		86. 40
Total receipts July 1, 1902, to June 30, 1903		2, 935, 393. 88

EXPENDITURES.

Permanent settlements	\$8, 500. 00
Secretary of the Territory	32, 967. 49
Judiciary department	80, 171. 10
Treasury department	24, 320. 76
Conveyance bureau	11, 176. 94
Tax bureau	70, 194. 46
Public works department	750, 327. 07
Public grounds	8, 376. 00
Fire department	59, 271. 23

U. S. N.

Cash statement July 1, 1902, to June 30, 1903, current account—Continued.

EXPENDITURES—continued.

Waterworks bureau	\$107,551.69	
Public lands commission	16,200.54	
Public instruction	403,913.66	
Attorney-general's department	305,630.13	
Agriculture and forestry	13,978.13	
Survey department	39,748.23	
Board of health	323,145.41	
Governor	31,387.79	
Auditing department	15,512.12	
Legislature (printing journal of house) ..	603.50	
Payment of Chinese fund	89,986.30	
Expenses fire claims commission	12,346.58	
Total, being warrants issued by auditing department	\$2,405,309.62	
Warrants outstanding July 1, 1902	297,427.87	
Total	2,702,737.49	
Less warrants outstanding June 30, 1903:		
Of last period	\$692.28	
Of this period	240,021.14	
	240,713.42	
Total warrants paid by treasury department....	2,462,024.07	
Hawaiian treasury notes taken up	\$105,000.00	
Interest on bonded debt, commission, etc.	51,556.57	
Expenses legislature 1903	79,173.06	
Land sales (special deposit)	17,991.23	
Road tax (special deposit)	139,150.00	
Transferred to fire claims cash	7,317.30	
Total, being amount of cash disbursements by treasury department other than by warrants..	400,188.18	
Total disbursements by treasury department....	2,862,212.25	
Current cash balance June 30, 1903	73,181.63	
	\$2,935,393.88	

Statement "Fire claims commission awards."

Amount of appropriation	\$1,500,000.00	
First payment, being 10 per cent of awards	\$147,317.30	
Amount assumed by the United States Government ..	1,000,000.00	
Final payment, being balance due	325,855.70	
Total payments, being amount of awards made by fire claims commission	1,473,173.00	
Unexpended balance	26,827.00	

Statement of fire claims cash.

Received from United States Government (refund of interest)	\$140,000.00	
Transfer from current cash	7,317.30	
Received from sales of bonds	162,000.00	
	\$309,317.30	
Warrants A issued	147,317.30	
Warrants B issued	325,855.70	
Warrants outstanding June 30, 1903:	473,173.00	
Warrants A	\$4,577.24	
Warrants B	164,011.19	
	168,588.43	
	304,584.57	
Cash on hand June 30, 1903	4,732.73	
	309,317.30	

Subdivision of tax receipts—Comparative statement for the years ending June 30, 1902, and June 30, 1903.

	Year ending June 30, 1902.	Year ending June 30, 1903.
Real estate.....	\$532,637.09	\$560,456.31
Personal property.....	571,248.69	592,326.37
Insurance.....	3,846.00	4,686.11
Carriages.....	8,540.00	9,522.00
Carts and drays.....	7,547.00	8,282.00
Road tax.....	92,594.00	102,018.00
School tax.....	92,592.00	102,016.00
Poll tax.....	46,299.00	51,009.00
Dogs and dog tags.....	4,325.19	4,787.60
Ten per cent penalties.....	9,586.27	9,350.31
Advertising costs.....	587.15	788.50
Court costs.....	937.90	727.15
Income tax.....	287,366.80	205,096.77
Total.....	1,658,107.09	1,651,023.12

Property subject to ad valorem taxes according to assessments for 1902.

Real estate.....	\$60,591,587.00
Personal property.....	62,319,218.00
Total.....	122,910,803.00

Detail statement of bonded debt June 30, 1903.

Act of October 15, 1886:	
Loan in London.....	\$980,000.00
Stock E 6 per cent bonds.....	1,000.00
	\$981,000.00
Act of September 7, 1892:	
Stock O 6 per cent bonds.....	100.00
Act of June 13, 1896:	
Stock A 5 per cent bonds.....	878,000.00
Stock E 5 per cent bonds.....	9,000.00
Stock O 5 per cent bonds.....	1,000.00
Stock U 5 per cent bonds.....	50,000.00
	938,000.00
Total bonds outstanding.....	\$1,917,100.00
Hawaiian bonded debt assumed by the United States Government.....	4,000,000.00
Amount of public debt paid by the United States Government to June 30, 1903.....	2,250,300.00
Amount of postal savings bank indebtedness paid by the United States Government to June 30, 1903.....	764,570.31
Total Hawaiian bonded debt paid by the United States Government to June 30, 1903.....	3,014,870.31
Balance of Hawaiian bonded debt to be paid by the United States Government.....	985,129.69
Total Hawaiian bonded debt which the Territory of Hawaii assumes..	931,970.31
Fire claims 4 per cent bonds; act of Congress United States, January 26, 1903.....	162,000.00
Net indebtedness June 30, 1903.....	1,093,970.31

Statement of appropriations made by the legislature of 1903.

REGULAR SESSION.		EXTRA SESSION—continued.	
Act 1.....	\$25,000.00	Act 3.....	\$13,000.00
Act 2.....	40,000.00	Act 4.....	7,000.00
Act 3.....	30,000.00	Act 5.....	4,000.00
Act 34.....	5,000.00	Act 6.....	203,720.56
Act 45.....	11,500.00	Act 7.....	12,500.00
Act 47.....	1,700.00	Act 9.....	1,500.00
Act 64.....	4,000.00	Act 10.....	1,202,891.87
Act 71.....	155,546.70	Act 11.....	1,521.25
Act 73.....	3,000.00	Act 12.....	1,000.00
Act 75.....	24,000.00	Act 13.....	1,478,335.00
Act 81.....	2,337.85	Act 14.....	5,029.28
EXTRA SESSION.		Act 15.....	2,000.00
Act 1.....	244,893.73	Act 16.....	709,585.50
Act 2.....	5,000.00	Act 17.....	1,105,607.00
		Act 18 (loan).....	2,397,270.75

Statement of loan appropriations made by the legislature of 1903.

Wharves, schoolhouses, etc., general	\$997,600.00
County of East Hawaii, or districts of Hamakua, North Hilo, South Hilo, and Puna	222,000.00
County of West Hawaii, or districts of North Kohala, South Kohala, North Kona, South Kona, East Kau, and West Kau	85,294.88
County of Maui, or islands of Maui, Molokai, Lanai, and Kahoolawe ..	178,600.00
Oahu County, or island of Oahu	804,075.87
County of Kauai, or islands of Kauai and Niihau	109,700.00
	<hr/> 2,397,270.75

Subsidies.

	Per annum.
Oahu Railroad and Land Company	\$18,550.00
Queen's Hospital	20,000.00
Wilder & Co., steamer between Honolulu and ports on Maui, Molokai, and Lanai	2,600.00
Inter Island Telegraph Company, Limited, wireless telegraph between Hawaiian Islands	12,000.00
Farmers' Institute	150.00
Federal experiment station at Honolulu	5,000.00
Eleele Hospital, Kauai	900.00
Waimea Hospital, Kauai	1,750.00
Lihue Hospital, Kauai	1,800.00
Leahi Home, Hospital for Incurables, Honolulu, Oahu	7,125.00
Kapiolani Maternity Home	5,100.00
Associated charities	2,185.00
Home for Normal School Pupils	3,333.33
Total	<hr/> 80,493.33

Pensions.

	Per annum.
Queen Liliuokalani	\$7,500.00
Mrs. Emma Barnard	200.00
Mrs. Kamakani Simeona	200.00
Mrs. Mary L. Stolz	200.00
Mrs. Paahao	200.00
	<hr/> 8,300.00

FIRE-CLAIMS COMMISSION.

The following is the report of Mr. F. W. Macfarlane, chairman of the fire-claims commission:

My former report, submitted to you under date of July 29, 1902, comprehended the bulk of the work of the commission. In concluding said report I explained that

owing to certain action having been taken in the courts by attorneys for certain claimants to test the legality of charges made by the commission for the issuing of certificates of award the financial portion of the report could not be completed. The decision of the circuit court was adverse to the commission, and the matter was put into the hands of the attorney-general to take an appeal to the supreme court.

The Territorial legislature of 1903 provided an appropriation to defray the expenses of disbursing the money appropriated by the United States Congress for the payment of fire claims and for the expenses of the fire-claims commission. The commission, upon the receipt of a communication from the Territorial auditor, Mr. J. H. Fisher, under date of June 25, 1903, demanding the payment into the Territorial treasury as a government realization all fees collected by the commission for certificates of award, amounting to the sum of \$5,077.25, decided to comply with his demand, and payment of the above amount was made to the treasurer of the Territory. In lieu of the funds thus surrendered the commission received from the government appropriation the sum of \$6,108.48 to defray remaining indebtedness of the commission, which included the item of the loan of \$4,000 received from the merchants of Honolulu, with interest upon same at 6 per cent per annum. Accompanying this report is a detailed statement covering the expenses above mentioned.

The commissioners, having completed their duties, adjourned sine die on July 25, 1903, after having adopted the following resolution:

Whereas, the commissioners having completed their duties and being about to finally adjourn the commission, the clerk of the commission is requested to reply in writing to all persons now having communications on file with the commission, filed since the adjournment of the commission taken after the signing of awards, notifying them that no further business would be passed upon by the commission, and referring them to the government for consideration of the questions referred to in their communications.

The clerk is further requested to deposit forthwith with the secretary of the Territory all records of the commission, consisting of all copies of claims filed, exhibits filed in evidence in the hearing of said claims, records of judgments of awards, minutes of the proceedings of the sessions of the commission, letters and correspondence, accounts, and all other records and property, of whatsoever nature, belonging to the commission. A full and sufficient receipt shall be taken by the clerk from the secretary of the Territory for the records and property deposited and turned over to him, which receipts shall be deposited with the chairman of the commission upon the completion of the transfer.

And be it further resolved, That this commission do now adjourn sine die.

Notes given and paid by fire claims commission, the proceeds of which were used for carrying on the work of the commission.

Paid Bishop & Co., note dated November 18, 1901, at one year.....	\$1,000.00	
Interest on same for 1 year 7 months 25 days, at 6 per cent.....	99.17	\$1,099.17
Paid Bank of Hawaii, note dated November 16, 1901, at one year.....	1,000.00	
Interest on same for 1 year 7 months 27 days, at 6 per cent.....	99.50	1,099.50
Paid Claus Spreckels & Co., note dated November 20, 1901, at one year.....	1,000.00	
Interest on same for 1 year 7 months 23 days, at 6 per cent.....	98.83	1,098.83
Paid First National Bank, note dated November 20, 1901, at one year.....	1,000.00	
Interest on same for 1 year 7 months 23 days, at 6 per cent.....	98.83	1,098.83
		4,396.33
Paid other indebtedness incurred.....		1,712.15
Total.....		6,108.48

Statement of fire claims commission awards.

Total awards of fire claims commission.....	\$1, 473, 173. 00
Amount assumed by the United States Government	1, 000, 000. 00
Balance to be paid by Territory	473, 173. 00
Ten per cent of awards paid by the Territory.....	\$147, 317. 30
Balance to be paid from funds realized from the sale of fire claims bonds.....	325, 855. 70
	473, 173. 00

Statement of fire claims cash.

Cash received from United States Government (refund interest on bonds)	\$140, 000. 00
Transfer from current cash of Territory.....	7, 317. 30
Total cash paid from Territorial treasury.....	147, 317. 30
Cash received from sale of fire claims bonds and paid out	162, 000. 00
Total payments by Territory to June 30, 1903	309, 317. 30
Warrants issued by auditor June 30, 1903	473, 173. 00
Less warrants outstanding June 30, 1903	168, 588. 43
Warrants paid by treasury	304, 584. 57
Cash on hand.....	4, 732. 73
Total	309, 317. 30

Statement of appropriation for the payment of fire claims awards.

Appropriation passed by the legislature of 1901.....	\$1, 500, 000. 00
Less amount assumed by the United States Government	1, 000, 000. 00
	500, 000. 00
Total awards to be paid by the Territory.....	473, 173. 00
Unexpended balance	26, 827. 00

Statement of appropriations for expenses connected with fire claims commission and the payment of claims.

	Appropriation.	Expended June 30, 1903.	Unexpended balance.
Legislature of 1901	\$17, 400. 00	\$14, 995. 65	\$2, 404. 35
Legislature of 1903	30, 000. 00	12, 731. 09	17, 268. 91
Total	47, 400. 00	27, 726. 74	19, 673. 26

CHINESE FUND.

A number of Chinese laborers were in the Hawaiian Islands at the time of the creation of the Territory of Hawaii, who had been admitted under the provisions of previously existing laws, by which they were required to work as agricultural laborers or as mill hands or as domestic servants, and to pay a part of their wages to the government toward a fund to be used for sending them out of the country whenever they should cease so to work. The fund so accumulated was known as the Chinese fund.

The action of Congress in repealing the laws relating to Chinese immigration left the matter of the disposition of this fund unprovided for and necessitated local legislation on this subject.

In view of these circumstances, I sent a message to the legislature at its regular session of 1903, of which the following is a copy:

The act of Congress providing a government for the Territory of Hawaii repealed part 6 of chapter 93 of the Penal Laws and act 68 of the Session Laws of 1898, relating to the restriction of Chinese immigration.

The repealed laws made provision, among other things, for the payment of certain amounts to the board of immigration out of the wages of each Chinese laborer admitted under the authority of such laws, such moneys to be deposited by the board of immigration in the postal savings bank and to be used in paying the passage of such laborer out of the country upon his ceasing to work as an agricultural laborer or as a laborer in the sugar or rice mills.

Under the provisions of the organic act the postal savings bank has been closed out and the said fund paid to the government, which has since that time administered such fund separately from the finances of the government and has from time to time purchased tickets for the passage from the country of the persons entitled to such moneys out of the amounts due them, respectively, and paid them the balance.

There is not now, nor has there been since the organic act went into effect, any law for the custody and disposition of such funds, which at the present time amount to \$155,546.70.

I recommend appropriate legislation for the custody and disposition of this fund
EXECUTIVE CHAMBER, *March 19, 1903.*

The legislature thereupon passed an act, which was approved April 28, 1903, entitled "An act to provide for the care, custody, control, and payment of \$155,546.70, being the money now in the possession of the treasurer of the Territory and designated or known as the Chinese fund."

By this act the said fund was declared a government realization, and a like amount appropriated for the payment of the claims of those interested in the said Chinese fund; the governor and the secretary of the Territory were created a board of examiners to investigate such claims and to certify to the auditor such as should be satisfactorily proved, and the auditor was authorized to draw warrants on the treasurer for the payment of such claims so certified.

The following report by Mr. George R. Carter, secretary of the Territory, gives a statement of the proceedings of the board of examiners under the provisions of the statute mentioned.

Mr. Carter, at my request, has assumed the conduct of these proceedings. The work has been difficult and perplexing, requiring great patience, tact, and a judicial attitude of mind. His report of progress is entirely satisfactory.

The question of authority of the Chinese consul in Honolulu to receive the funds of those claimants who have died, for the benefit of their legal representatives, is an important one. I find no provision in the American-Chinese treaties covering this ground. It would be a matter of great convenience if such an authority could be recognized, and it would specially promote the final disposition of the matter of the Chinese fund.

REPORT OF THE SECRETARY OF THE TERRITORY.

It may be of interest to you to have a few facts and figures relating to the Chinese fund up to and including July 22, 1903, when it became necessary to suspend the payment temporarily in order to allow the undivided attention of the auditor's force to be devoted to closing the books for the fiscal period ending July 1.

You are familiar with the condition of the fund up to the passage by the late legislature of act No. 71, approved by you on April 28, and published for the first time on May 6, 1903.

The first claims were received on May 6, and at the end of the seventy-six days, to July 22, 2,300 claims had been settled by the payment of \$89,986.30.

Every one of the claimants had either appeared in person before the writer, who identified him, or had assigned his claim before a notary public, which was presented and examined.

A considerable number of claims have been rejected and returned, owing to faulty acknowledgments by the notaries, or because of the claimants' failure to properly identify themselves.

A number of Chinese have set up claims, but were without their identification books furnished by the bureau of immigration. Some of them stated that the books had been burned in the fire, and others that their books had been stolen or lost. If such statements are correct, it is eminently unfair that they should forfeit their claims, and at your suggestion a form of bond was furnished by the attorney-general's department, and 22 of the total claims paid have furnished satisfactory bonds for double the amount in each case, by which it is stipulated that in case the books turn up, or for any other reason their rights to the funds should be questioned, the bondsmen agree to reimburse the Territory.

In the settlement of these claims there are two important questions which have not yet been disposed of:

First. The claims of the friends of those who have died.

Second. The claims of those who deserted and did not fulfill their contracts or the conditions under which they were allowed within the limits of the Territory.

In reference to the first question, in the early part of June I received a call from H. I. C. M. consul, Chan Tso Fan, regarding this matter. While Mr. Wray Taylor was in charge of the Chinese fund he had paid the claims of all those who were reported as dead to the Chinese consul, and, as you are aware, the writer had claim No. 5446 presented in person by the applicant who appeared to own the same by the photograph, and Mr. Taylor's record showed that this claim had been paid to the former consul, Wai Ping, under certificate of death given by Doctor Li. It seems no record had been kept at the consulate of these payments, and nothing could be done with the claim, although the present consul, Mr. Chan Tso Fan, has taken up the matter and written to the former consul for an explanation.

During the interview the writer stated that the legislature had provided that these payments should be made to the legal representatives of these claimants, and if the Chinese consul could in any way show, by treaty stipulation or otherwise, that he is entitled to be recognized as the legal representative, the Territory would gladly pay him these claims, in response to which the Chinese consul called attention to the fact that such course was of international usage where the laws of the country permitted it, but I am not yet convinced as to the legality of such procedure.

In reference to the second question, relating to those who have not complied with their contracts, I have not yet knowingly allowed any such claim, but owing to the laxity of the plantations in keeping records of such matters it is impossible to make the statement that no such claims have been paid. I have, however, uniformly refused to pay claims where the evidence was conclusive that the contract had not been complied with, taking the ground that it was a matter for the courts to decide whether or not such claimants were entitled to a refund of their deposit. The points involved in this question are intricate, and it seems as if such claimants must at least prove that they have followed no other than an agricultural occupation. In such cases I have suggested that a friendly suit be instituted, and that every facility would be offered for such purpose, in order to determine the standing of this class of claims.

I inclose also a detailed statement of a number of unusual cases which have been presented. In these instances it is most difficult to ascertain whether or not the statements made are correct. There has undoubtedly been considerable traffic in these books. In some instances it certainly appears as if they were in the habit of presenting their books and securing a return ticket to China and then selling the ticket. In one case a claimant, whose identity appears to be satisfactory, claims that he has never been paid, yet there are no funds to his credit, and the postal savings bank account shows that a warrant was issued by the Federal authorities in payment of the account. On examining the receipts given by former secretary Cooper for these warrants, this number is deducted from the total and noted as not being received.

Of the appropriation there is a balance due the claimants of \$65,560.40, and the work of paying the claims is now under way again.

MEMORANDA RE "CHINESE FUND."

Nos. 932 and 5006.—June 10, 1903, received call from the Chinese consul, who stated that Doctor Li, former secretary of the consulate, had left the above-numbered books with Mr. Taylor, stating that the claimants were dead, and asking that the money be turned over to the consul. Above books can not be found.

No. 1123. Ho Chong, Ewa plantation, presented May 25.—There are no funds on the auditor's books. Investigation shows that Taylor drew the balance from the Postal Savings Bank on July 12, 1898, \$37.05. Book No. 2 shows entry that the above returned to China on steamship *Coptic* on July 14, 1898. There is no receipt either by claimant or any agent. Claimant denies the above.

No. 1614. Tim Kin, Honokaa plantation, presented June 25.—Assigned June 18 by Tim Kin to Y. M. Wee; acknowledged by Charles Williams as personally known to him. No funds. On July 18, 1901, the Chinese consul, Yee Ping, gave receipt No. 158 for \$40.45, as due Tim Kin, whom Dr. Greenfield certifies as having died February 28, 1901, of a broken neck.

No. 4237. Loo Kin Wai, Kekaha Sugar Company, presented June 13.—Claimant shows torn portion of contract and claims that he left his identification book with Fong Yuk, a laundryman in Honolulu, for safe-keeping. The book was sold under pretense that claimant was going to China. Book was canceled June 21, 1902 (receipt book No. 2, page 167), for ticket No. 7050, *City of Peking*, June 23, and Birdie Lum Ong signed for \$39.10.

No. 6561. Kei Lui Ching, Wailuku Sugar Company, presented June 24.—No funds. Investigation shows that Federal warrant No. 7709 was receipted for by Mr. Cooper, yet \$38.30 was drawn from bank by Mr. Taylor. (See his check No. 8.) Claimant wants money.

HAWAIIAN COINAGE.

Through the courtesy of Mr. W. G. Cooper, of the First National Bank of Hawaii, I am able to present the following statement of the redemption of Hawaiian coins by the United States Treasury Department:

Issue of Hawaiian coins.

Denomination.	Coined.	Issued.	Held in treasury.
Dollars	\$500,000	\$500,000	.....
Half dollars	350,000	350,000	.....
Quarter dollars	125,000	98,000	\$27,000
Dimes	25,000	25,000	.....
Total	1,000,000	978,000	27,000

Redeemed by the United States up to June 30, 1903.

Dollars	\$412,000
Half dollars	278,000
Quarter dollars	50,000
Dimes .....	.....
	740,000
Redeemed to August 18, 1903	23,000
Total	763,000

No dimes have been redeemed, as they have all been taken up by collectors and souvenir hunters.

COMMERCE.

There has been an increase in the value of shipments out of the Territory, not including specie, over last year of \$1,481,703. The main part of this increase is in the one item of sugar, its increase in value over the shipments of the last period being \$1,390,571. This is a decided improvement over the comparative statistics of the years ending June 30, 1901, and June 30, 1902, which show a falling off in the value of sugar shipped in the latter as compared with the former of \$3,173,810.41, although the weight of sugar shipped in the latter year was greater than that shipped in the former by 29,674,123 pounds.

Comparative table of merchandise shipped from Hawaii.

	Year ending June 30, 1901.		Year ending June 30, 1902.		Year ending June 30, 1903.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Sugar, raw	690,894,234	\$27,093,923.41	720,553,357	\$23,920,113	774,825,420	\$25,310,684
Coffee	2,620,169	811,897.27	1,210,098	126,644	1,930,554	238,860
Rice	549,475	22,527.00	342,300	15,422	234,980	10,220
Fresh fruits		76,167.65		66,161		66,398
Honey		9,770.00		6,455		15,424
Hides	1,364,100	76,994.66	1,099,763	78,413	917,663	80,190
Wool, raw	819,734	110,184.94	351,418	38,681	364,794	43,552
Molasses		4,615.00				
Curios		1,696.00				
Other articles, including foreign merchandise		346,654.50		541,846		512,110
Total		28,054,430.43		24,793,735		26,275,438
Specie		1,320,770.27		157,706		802,838

The statistics for the last three periods show a steady increase in the production of sugar, the increase in the year ending June 30, 1903, of sugar shipped being 54,272,063 pounds over that of the previous year and 83,931,186 pounds over that of the year ending June 30, 1901.

The shipments of coffee show an increase of 720,456 pounds over the shipments of the previous period and a falling off of 689,615 pounds from the shipments of the year ending June 30, 1901. The shipments of coffee the past year were worth \$110,216 more than the shipments of the year before and \$75,037.27 less than the shipments of the year ending June 30, 1901, all of which would indicate a partial recovery in this product from the depression of the year to June 30, 1902.

Rice is inevitably a diminishing product, both from the competition of the new rice fields of Texas and Louisiana and the diminishing numbers of Chinese in the Territory.

The following articles show a falling off in value of shipments from the previous year:

	Year to June 30, 1902.	Year to June 30, 1903.	Decrease.
Rice	\$15,422	\$10,220	\$5,202
Sundries, including foreign merchandise	541,846	512,110	29,736
Total	557,268	522,330	34,938

The following articles show an increase in value of shipments over the previous year:

	Year to June 30, 1902.	Year to June 30, 1903.	Increase.
Sugar	\$23,920,113	\$25,310,684	\$1,390,571
Coffee	126,644	238,860	110,216
Fresh fruits	66,161	66,398	237
Honey	6,455	15,424	8,969
Hides	78,413	80,190	1,777
Wool	38,681	43,552	4,871
Total	24,236,467	25,753,108	1,516,641
Specie	157,706	802,838	645,132

Through the courtesy of the Department of Commerce and Labor I am enabled to furnish the following tables:

Total value of all articles imported from foreign countries and exported from the district of Hawaii for the fiscal year ending June 30, 1903.

	Imports.	Exports.
United States		\$26, 242, 889
Great Britain	\$507, 350	156
British colonies	726, 347	16, 429
Germany	387, 470	1, 232
Hongkong	158, 805	7, 896
Japan	970, 591	6, 432
Chile	307, 300	
France	4, 975	
Other countries	79, 175	422
Total	3, 142, 013	26, 275, 488

Shipments received from the United States	\$12, 675, 026
Imports from foreign countries	3, 142, 013
Total	15, 817, 039

Value of carrying trade to and from the district of Hawaii for the year ending June 30, 1903.

	Imports.	Exports.
American	\$985, 694	\$26, 261, 008
British	1, 114, 968	11, 642
French	24, 989	
German	351, 328	
Norwegian	86, 789	
Other	578, 245	2, 798
Total	3, 142, 013	26, 275, 488

Total value of domestic products shipped to the United States and exported to foreign countries during the fiscal year ending June 30, 1903.

Articles.	Quantity.	Value.
	<i>Pounds.</i>	
Sugar, raw	774, 825, 420	\$25, 310, 684
Coffee	1, 930, 564	236, 860
Rice	234, 980	10, 220
Fresh fruits		66, 398
Honey		15, 424
Hides	917, 663	80, 190
Wool, raw	364, 794	43, 552
Other		464, 876
Total		26, 228, 204

Domestic exports to foreign countries for year ending June 30, 1903.

	Value.	Pounds.
Coffee, raw	\$9, 574	78, 392
Rice	2	50
Fresh fruits	248	
Honey	144	
Other	17, 061	
Total	27, 029	

Domestic products shipped to the United States for the year ending June 30, 1903.

	Quantity.	Value.
	<i>Pounds.</i>	
Sugar, raw	774,825,420	\$25,310,684
Coffee	1,852,162	227,286
Rice	234,930	10,218
Fresh fruits		66,150
Honey		15,280
Hides	917,663	80,190
Wool, raw	364,794	43,552
Other		447,815
Total		26,201,175

Exports for the year ending June 30, 1903.

Domestic merchandise to foreign countries	\$27,029
Domestic merchandise to United States	26,201,175
Foreign merchandise to foreign countries	5,540
Foreign merchandise to United States	41,694
Total	26,275,438
Total specie exported to United States and foreign countries	802,838

Statement of vessels entering and clearing in the district of Hawaii for the fiscal year ending June 30, 1903, by nationality.

Nationality.	Entered.		Cleared.	
	Number of vessels.	Tonnage.	Number of vessels.	Tonnage.
American	426	673,418	430	667,718
British	76	178,771	74	176,981
Japanese	29	99,880	29	99,880
Norwegian	5	5,009	6	5,875
German	6	7,218	5	6,065
French	4	7,626	4	7,626
Italian	1	1,626	1	1,626
Russian	1	1,468	1	1,468
Danish	1	2,674	1	2,674
Swedish	2	3,157	1	1,446
Total	551	980,847	552	971,359

Total number of vessels entering and clearing in the district of Hawaii, coastwise and foreign.

	Entered.		Cleared.	
	Number of vessels.	Tonnage.	Number of vessels.	Tonnage.
Coastwise ^a	342	558,060	442	652,142
Foreign	209	422,787	110	319,217
Total	551	980,847	552	971,359

^a The figures under the title "Coastwise" refer to American vessels doing business between Hawaiian and mainland ports, but do not include vessels engaged in the traffic among the Hawaiian Islands.

Total number of vessels entering and clearing in the district of Hawaii during the fiscal year ending June 30, 1903, by ports.

	Coastwise. ^a				Foreign.			
	Entered.		Cleared.		Entered.		Cleared.	
	Number.	Tons.	Number.	Tons.	Number.	Tons.	Number.	Tons.
Honolulu	259	484,267	330	550,566	203	416,226	107	316,583
Hilo	48	49,973	47	52,153				
Kahalui	7	6,677	12	12,865	6	6,561	2	1,727
Mahukona	17	5,838	19	6,769				
Koloa	1	444	22	17,367				
Lahaina	10	10,861	12	12,422			1	907
Total	342	558,060	442	652,142	209	422,787	110	319,217

^a The figures under the title "Coastwise" refer to American vessels doing business between Hawaiian and mainland ports, but do not include vessels engaged in the traffic among the Hawaiian Islands.

Coasting vessels engaged in the inter-island trade.

Owners.			Name of vessel.	Construc- tion.	Tonnage.	Motive power.
Inter-Island Company.	Steam	Navigation	Mauna Loa	Wood	536	Steam and sail.
			Hanalei	do	502	Do.
			W. G. Hall	do	380	Do.
			Mikahala	do	354	Do.
			Kauai	do	265	Do.
			Iwalani	do	240	Do.
			Noeau	do	221	Do.
			Niihau	do	201	Do.
			Keauhou	do	193	Do.
			Waialeale	do	176	Do.
Wilder's Steamship Company			James Makee	do	137	Do.
			Malolo	do	83	Gasoline and sail.
			Kinau	Iron	773	Steam and sail.
			Claudine	do	609	Do.
			Maui	do	394	Do.
			Helene	do	393	Do.
			Kaiulani	Wood	243	Do.
			Hawaii	do	227	Do.
			Lehua	do	130	Do.
			Mololi	do	42	Do.
Von Hamm, Young Company			Eclipse	do	163	Gasoline and sail.
			Waimanalo Sugar Company	do	79	Steam and sail.
			Cotton Bros	do	24	Do.
Allen & Robinson			Kaena	do	108	Sail.
			Kamoi	do	75	Do.
			Moi Wahine	do	72	Do.
			Concord	do	72	Do.
			Kiaukeaouli	do	72	Do.
			Luka	do	71	Do.
			Lavinia	do	40	Do.
			Chas. L. Woodbury	do	100	Do.
			Julia E. Whalen	do	96	Do.
			Kawallani	do	24	Do.
Sing, Chong & Co			Kaiulani	do	13	Do.
			Ada	do	28	Do.
			Lady	do	20	Do.
			Rob Roy	do	17	Do.
			Mokihana	do	16	Do.
			Fearless (tug)	Iron	85	Steam.
			Chas. Counselman (tug)	do	55	Do.

RECAPITULATION.

	Iron.	Wood.	Vessels.	Tonnage.
Steam vessels	4	17	21	6,119
Gasoline vessels		2	2	196
Sailing vessels		14	14	752
Total	4	33	37	7,067

Through the courtesy of the United States immigration service at Honolulu I am able to furnish the following:

	Chinese (only those with return permits).		Japanese.	
	Males.	Females.	Males.	Females.
Arrivals.....	532	29	9,065	2,985
Departures.....	456	3	.....	.....
Total.....	1,008	32	9,065	2,985

The ocean cable, which last year connected the Hawaiian Islands with the rest of the world, is of great importance to the Territory, officially, commercially, and socially.

PUBLIC WORKS.

The superintendent of public works reports as follows:

The statistics contained in the present report cover the entire period from July 1, 1902, to June 30, 1903, and are now to be substituted for those contained in the report ending December 31, 1902.

The only funds available for public improvements have been derived from current receipts. For this reason new work has been confined almost exclusively to road building.

Since my incumbency it has been the practice to prepare estimates of expenditures just prior to the beginning of each quarter of the year. These estimates have been discussed at meetings of the heads of departments at the regular meetings held in your chambers. In this way an agreement has been arrived at, governing the several departments so that funds placed at our disposal by the treasurer should not be overdrawn.

In carrying out this method I have been careful not to exceed the allowance put at the disposal of my department. This has been accomplished by restricting authorizations to road boards and by restricting contracts for new work so that the amount would not exceed the estimate for the quarter.

New work has been undertaken in the following instances:

Statement of contracts.

Contract.	Date.	Amount.	Paid.	Character of work.	Appropriation.	When completed.
Cotton Bros. & Co.	July 3, 1902	\$11,804.00	\$11,804.00	Approach Hackfeld Wh.	L. & B., Honolulu	Dec., 1902
Do	do	11,753.36	11,753.36	do	R. & B., 5th dist., Hon.	Do.
Honolulu Iron Works	July 7, 1902	4,118.16	4,118.16	Furnish 10-inch pipe	Hilo waterworks	Oct., 1902
Globe Navigation Co.	July 28, 1902	3,769.80	3,769.80	Coal for pumping station	Running ex. pumps	Feb., 1903
L. M. Whitehouse	Aug. 5, 1902	807.78	807.78	Laying pipe, Waialea	Hilo waterworks	Oct., 1902
Do	Aug. 11, 1902	4,420.13	4,420.13	Pukihæ arch, Hilo	Hilo roads	Feb., 1903
J. J. Belser	Aug. 29, 1902	10,488.74	10,488.74	Filling Waikiki road	R. & B., 4th dist., Hon.	Dec., 1902
Honolulu Iron Works	Oct. 2, 1902	2,025.35	2,025.35	Furnish 4-inch pipe	Hilo waterworks	Do.
J. W. Springston	Oct. 17, 1902	855.00	855.00	Culverts, Waikiki road	R. & B., 4th dist., Hon.	Do.
Globe Navigation Co.	Oct. 21, 1902	2,732.00	2,732.00	Coal for pumping station	Running exp. pumps	Mar., 1903
Hustace & Co.	Dec. 11, 1902	550.00	550.00	Moving sewer pipe	Sewerage, Kewalo dist.	Dec., 1902
Hawaiian Gazette Co.	Dec. 18, 1902	326.86	326.86	Second annual report	Printing and advertising	Mar., 1902
Bulletin Publishing Co.	Dec. 19, 1902	204.14	204.14	Superintendent's report	do	May, 1903
W. W. Bruner	Dec. 31, 1902	Schedule	7,646.26	Huehue road	Road Huehue to S. K.	
Whitehouse & Hawkhurst	Jan. 2, 1903	2,109.00	2,109.00	Walluku Bridge	Hilo roads	
Do	do	9,750.00	9,750.00	Constructing Reservoir	Hilo waterworks	
Do	do	9,983.00	9,983.00	Material, Walluku Building	Walluku Bridge	
I. I. S. Nav. Co.	Jan. 15, 1903	5,261.00	5,261.00	Material, Waialea Building	Waialea Bridge	
Nuno Fernandes	Jan. 22, 1903	3,918.00	3,918.00	Coal sewer pumping station	Run. exp. pumping sta.	May, 1903
I. I. S. Nav. Co.	Jan. 27, 1903	1,500.00	1,500.00	Filling road, culvert, Pukihæ	Hilo roads	
John Walker	Feb. 10, 1903	4,098.00	2,093.00	Coal, pumping plant	Run. exp. pump. station	Apr., 1903
Honolulu Iron Works	Mar. 23, 1903	161.43	161.43	Curb, approach wharf	R. & B., Lihue	June, 1903
Do	Mar. 24, 1903	325.00	325.00	Steel for 32-foot bridge	R. & B., 4th dist., Hon.	Do.
C. B. Dwight	Apr. 2, 1903	1,819.00	1,819.00	I-beams, Nuuanu Bridge	C. B. Dwight Cont.	Do.
F. H. Jordan	Apr. 15, 1903	1,086.75	1,086.75	Curb, Thomas square	Bridge at Wainiha	Do.
Whitehouse & Hawkhurst	May 12, 1903	2,976.00	2,976.00	Wainiha Bridge	Bridge at Kalihuiwai	
C. P. Benton	May 14, 1903	6,700.00	6,700.00	Steel bridge, Kalihuiwai	Road Ahualoa to Waimea	
Benton & Artoll	May 26, 1903	13,889.00	1,480.80	Ahualoa road	Road Pahala to Volcano	
Grimwood, Richardson & Co.	May 27, 1903	Schedule	1,500.00	Por. of Pahala rd.	Purchase steam roller, Kau	
Lord & Belser	May 28, 1903	3,200.00	930.93	Steam roller, Kau	Widening, etc., Waialea	
H. De Fries	May 29, 1903	5,489.00	2,807.20	Filling Beretania avenue	L. & B., Honolulu	
Lord & Belser	May 29, 1903	12,890.00	482.80	Oceanic dock	Widening, etc., Waialea	
Do	Extra.	1,207.00	558.44	Pahoa arch culvert	do	
Do	June 8, 1903	1,558.44	558.44	do	R. & B., 4th dist., Hon.	
Hawaiian Electric Co.	June 10, 1903	682.97	680.16	Storm sewer, Bishop street	Elec. light, Hon.	June, 1903
John C. Pincano	June 16, 1903	4,560.00		Electrical supplies	R. & B., Ewa dist.	
I. I. S. Nav. Co.	June 26, 1903	1,894.50		Retaining wall, Kalauoa	Run. exp. pumping plant	
Nuno Fernandes	June 26, 1903	7,746.00		Coal, pumping plant	Waialea Bridge	
Cotton Bros.	June 29, 1903	5,200.00		Abutments, Waialea Bridge	Bridge at Waimea	
	June 29, 1903	22,717.00		Steel bridge, Waimea		

Below are submitted tables showing balances of appropriations as of July 1, 1902, and June 30, 1903, expenditures for the twelve months intervening out of the various appropriations belonging to this department, and amounts carried to next period.

	Balance July 1, 1902.	Expenditures.	Balance June 30, 1903.	Carried to next period.
Salaries and pay rolls.....	\$188,592.54	\$177,737.80	\$10,854.74	.....
Construction, maintenance, and repairs of roads and bridges.....	1,258,587.65	420,484.31	838,103.34	\$151,239.40
Waterworks.....	127,844.90	91,261.69	36,583.21	12,018.05
Sewerage, Honolulu.....	62,312.42	43,416.05	18,896.37	1,284.64
Fire departments.....	32,807.18	21,928.02	10,879.16	.....
Wharves and harbors.....	60,348.09	8,680.36	51,667.73	33,032.22
Landings and buoys.....	64,040.25	49,214.56	14,825.69	10,633.48
Electric lights.....	21,690.82	16,613.66	5,077.16	3,991.56
Furniture, buildings, and grounds.....	48,787.80	12,800.95	35,986.85	3,052.92
Cemeteries.....	19,748.50	3,050.49	16,698.01	.....
Subsidies.....	34,500.00	10,500.00	24,000.00	24,000.00
Reimbursements.....	2,337.85	.....	2,337.85	.....
Unpaid bills.....	173,393.43	42,263.44	131,129.99	126,303.34
Miscellaneous.....	156,783.71	27,575.15	129,208.56	.....
Total.....	2,251,775.14	925,526.48	1,326,248.66	365,555.61

In addition to payments out of appropriations for roads and bridges of the Territory, expenditures are also made out of special tax funds of the several road boards. These funds represent the road taxes collected in the various districts which are credited to them by the treasurer. The approval of the expenditures out of these funds does not require the sanction of the superintendent of public works, being subject only to the discretion of the chairman of the road boards. The chairman draws his draft upon the superintendent, who honors same with his own draft upon the special deposit in the treasury.

Financial statements are rendered to the department at the end of each quarter, accompanied by vouchers covering expenditures.

The following is a comparative statement showing distribution of expenditures out of appropriations and road-tax funds for the various islands of the Territory for the year ending June 30, 1903, for construction, maintenance, and repairs of roads and bridges:

	Expenditures from appropriation.	Expenditures from road tax.	Total.
Island of Hawaii.....	\$146,786.09	\$55,396.08	\$202,182.17
Islands of Maui, Molokai, and Lanai.....	24,001.77	20,072.24	44,074.01
Island of Oahu.....	219,727.53	52,879.78	272,607.31
Island of Kauai and Niihau.....	28,760.05	21,636.56	50,396.61
Total.....	419,275.44	149,984.66	569,260.10

The following statement shows the amounts and sources of collections by the department for the twelve months ending June 30, 1903:

Garbage.....	\$6,460.65
Rents.....	49,980.37
Sewers.....	12,643.98
Excavator.....	5,752.75
Land sales.....	6,270.56
Land sales, interest.....	231.39
Weights and measures.....	176.75
Market.....	14,054.95
Government realizations.....	12,415.53

Total collections, office of superintendent of public works.....	107,986.93
Paid into treasury as per receipts.....	103,004.83

Shortage..... 4,982.10

This shortage occurred the latter part of August and the early part of September, 1902, during the incumbency of James H. Boyd, superintendent, and B. H. Wright, chief clerk, as stated in my supplemental report to December 31, 1902.

The following is a statement of receipts by bureaus of the department of public works, from July 1, 1902, to June 30, 1903:

Harbor master, Honolulu.....	\$70, 305. 52
Harbor master, Hilo.....	2, 438. 47
Powder magazine, Honolulu.....	1, 573. 77
Powder magazine, Hilo.....	535. 35
Kerosene warehouse, Honolulu.....	5, 951. 45
Kerosene warehouse, Hilo.....	422. 88
Waterworks, Honolulu.....	102, 841. 85
Waterworks, Hilo.....	6, 610. 25
Waterworks, Laupahoehoe.....	137. 15
Waterworks, Wailuku and Kahului.....	4, 413. 80
Waterworks, Lahaina.....	1, 328. 95
Waterworks, Koloa.....	195. 00
Total.....	196, 754. 42

PUBLIC SURVEY.

The work of this department and its miscellaneous character is shown by the extracts given below from the report of Mr. Walter E. Wall, surveyor.

The work of the department has been somewhat limited of late through inadequate appropriations.

The report on meteorology and tides, by Mr. Curtis J. Lyons, meteorologist, I insert nearly in full.

[Extracts from the report of the surveyor.]

FIELD WORK.

Hawaii.—In the Puna district the Curtis Settlement Association homestead surveys have been completed. The eight lots, located at 11½ miles, Volcano road, have been substantially marked on the ground with large posts and all division or boundary lines plainly cut through. These lots will average about 10 acres each. Map and descriptions of lots are completed.

At 27 miles, Volcano road, two large tracts containing an area of 3,600 acres were divided into 18 lots of 200 acres each. This region is covered with a dense forest and a heavy undergrowth of ferns, etc., which is kept exceedingly damp by the numerous showers or daily rains. Much difficulty was experienced in keeping men at work in this section, owing to a great amount of rain and consequent coldness in a dense forest at an elevation of over 3,000 feet.

The lots extend from the Volcano road to a distance of over 3 miles into the forest. The work on this survey was begun in the latter part of September and was completed the latter part of December. The assistant has placed substantial posts at all lot corners, cut 26 miles of line through this dense forest, so that the homesteaders will have no difficulty with their boundaries, and has profiled 7½ miles of road.

The plans of these tracts and the descriptions of the lots have been nearly completed.

A preliminary survey and plan of part of the upper Laupahoehoe and Kamae tracts have been made, which show all plantation roads, approximate contour lines, etc.

Profiles of the plantation roads are completed, so it will now be an easy matter for the road engineer of the public-works department to locate roads for the homestead tracts. The tract can be quickly subdivided just as soon as this important matter of roads has been decided upon.

A complete survey has been finished of the section of Kau, extending from the ahupuaa of Waiohinu on the east to Pakini and Kahuku on the west.

It consists of 21 ahupuaas, containing 42 grants and 47 land-commission awards.

The lower portion of the government remnant, containing an area of 3,000 acres or more, was cut up into homestead lots of sizes varying from 30 to 200 acres. Four roads and branch roads connecting with the main government road were laid out 40 feet wide, with a maximum grade of 6 per cent, giving convenient and easy access to every lot.

The upper portion of the government land, 5,000 acres or more, was set apart as a forest reserve.

The corners of all the lots and every corner touching on the government land has been marked by a stone bound and mark and a pile of stones (ahu), so that there can be no trouble whatever in finding on the ground every corner located on the map. The entire work is thoroughly tied up by triangulation to the primary triangulation stations of the government surveys.

As these primary triangulation stations are themselves marked by huge stone ahus, always in place and always ready to be sighted upon at any required distance, no one need spend time in hunting for them or feel any uncertainty about their exact position.

Should the Kona and Kau Railroad pass through or near this section of the country these lots will be greatly enhanced in value. They formerly supported a large population, and if properly developed and improved by bona fide settlers may yet become the homes of desirable citizens.

During the months of January and February a portion of the Olaa tract off the Volcano road, at a distance of 24½ miles from Hilo, was subdivided into homestead lots for the Brughellie Settlement Association.

The division consists of nine lots, containing an area of 200 acres each. The entire land is covered with a dense forest and a heavy undergrowth of ferns, vines, etc. Owing to these conditions and the frequent rains the assistant in charge found it difficult to make rapid progress. It was found necessary to complete the surveys of a few of the Olaa Reservation lots in the vicinity by cutting the division lines through and marking them.

A survey has been made of the Honomu forest lands in the Hilo district, the object of which was to determine whether the government remnants should be laid out into homesteads or kept as a forest reserve.

The Waipunalei homestead lots have been located with reference to new roads passing through the tract. A new plan and descriptions of these lots is very nearly completed. It might be mentioned that no descriptions of the lots had been furnished with the original survey.

The Pihoonua forest survey, which had to be discontinued for a while in order to take up more urgent work, was completed the latter part of June, and we are pleased to report that the map, which will show all of the clearing permits and natural features of the forest region up to an elevation of 2,100 feet, will soon be finished. The assistant who was in charge of the field party found it necessary to cut his way through on every course made in the survey. The forest is very dense and is kept exceedingly damp by frequent rains. There was almost constant rain during the month of May, which retarded the progress of the survey to some extent.

At the request of the superintendent of the Bernice P. Bishop estate a most careful study was made of the Keauhou-Kapapala boundary between the crater of Kilauea and the land of Humuula, with a view of permanently establishing this line. This important work was taken up by Mr. E. D. Baldwin, who was fortunately successful in finding several of the original points on the ground referred to in the boundary certificates of the lands. The acceptance by the estate's superintendent of the boundary line as recently determined prevents any dispute or further misunderstanding on the part of the leaseholders who are concerned in the construction of the fence that is to be placed along the lower division of the grazing lands. It is our intention to place a number of substantial monuments on this line, which is over 13 miles in length. No explanation is needed to show that even a narrow strip of only a few hundred feet would represent an area of considerable worth on such a long distance. The Bishop estate will, in accordance with an agreement, pay one-half of the expenses of the survey.

As stated in previous reports, it is becoming quite important to establish and mark the bounds of government tracts. This becomes the more evident as the private properties are being developed.

The survey of the Alikā homestead lots in Kona, which was reported nearly finished last year, has been completed. The plan and descriptions of these lots, which aggregate 3,000 acres, are on file for use at any time. A beach lot of 40 acres in Mahaiula-Kaulana was laid out for an applicant at the request of the land commissioner.

Hilo city work.—A complete cross-section survey has been made of the Hilo Reservoir site and considerable work done on the grades and location of the new pipe system.

Assistance has been rendered the road board by furnishing street lines, grades, etc., when needed for either road or bridge construction. Our systematic block measurements and calculations have progressed a little, and we are having compiled and collected together in record form all field books, calculations, etc.

Maui.—A field party was sent to Maui in the early part of February, and has been kept steadily at work on homestead surveys up to this time. The makai portion of

the land of Kamaole, a tract of second-class pasture land partly covered by panini or cactus, containing a little over 4,000 acres, was cut up into 71 homesteads, ranging in size from 40 to 60 acres each. The land being wide, necessitated the running out of two main roads, besides several side or branch roads, from the beach to connect with the main mauka government road. In all, over 13 miles of road was run, besides the accurate location of 2½ miles of seacoast. A strip of land 400 feet wide facing on the beach was set aside as a public reservation.

The next work taken up was the subdivision of the land of Alae. This tract of 900 acres runs from the plains below to far up on the slopes of Haleakala. Below the main government road, in a tract of first-class land, 8 lots, containing an area of from 30 to 40 acres each, were laid out. There remains a government remnant of 220 acres below these lots which is only suitable for grazing purposes at certain times of the year. Above the government road 7 lots, containing from 15 to 25 acres each, were laid out in the corn belt. The remainder of 180 acres was set aside as a forest reservation. In making this survey it was necessary to locate and mark the corners of a great many kuleanas and grants. There are 2 miles of roadway in this subdivision. Mention may also be made here that preliminary steps were taken to lay out a forest reservation in the lands from Kamaole to Waiakoa, but the government and the parties concerned having come to no definite understanding, the work has been held in abeyance.

Oahu and the city of Honolulu.—The work in the outer districts of Oahu has been rather limited, and consists only of the new division of the homestead lots of Luahalei, Waianae, and the government remnants in the lower part of Waiahole Valley. The Luahalei lots, 7 in number, cover an area of over 4,000 acres. The Waiahole remnants consist of 18 pieces, containing an area of 35.78 acres.

As these parcels of land are bounded by numerous small holdings or kuleanas, much care had to be taken in the survey. The established bounds have been marked in the most substantial manner with concrete posts.

The numerous public and private improvements carried on in this period have required much work from the Department, including the following, among other items:

Detail surveys of new street lines, building lots, and public grounds.

	Feet.
Curb lines and grades.....	30, 650
Street profiles.....	31, 480
Plans and profiles for grade commissioners.....	4, 700
Line given for telephone poles.....	11, 100
Line given for electric-light poles.....	4, 700
Lines given for Honolulu Rapid Transit and Land Company poles.....	29, 300
Lines marked on ground for street widenings.....	32, 480
Street lines marked for fencing, road construction, etc.....	38, 220
Grades marked for street construction.....	15, 500
Grades given the Honolulu Rapid Transit and Land Company for track laying.....	24, 100

OFFICE WORK.

Number of maps registered.....	38
Number of descriptions of surveys furnished.....	156
Number of tracings furnished.....	93
Number of blue prints furnished.....	407
Number of building permits considered for street line and grade.....	174
Number of maps registered to date.....	2, 191
Number of descriptions of miscellaneous surveys furnished to date, not including descriptions of homestead surveys.....	1, 388

The foregoing is but a portion of the miscellaneous work done in the office, which consists principally of calculations, map drawing, arranging and indexing records, and the furnishing of information on many matters relating to Government and private lands.

The photolithographed maps of the islands of Oahu and Kauai have been received from the publisher and offered to the public at a reasonable cost.

The new map of the island of Kauai is drawn to a scale of 5,000 feet to one inch, and contains much data obtained through the courtesy of private surveyors and land owners.

There is a constant demand for consulting the maps and other records in the office, and it occupies much time on our part in giving information on a great variety of matters pertaining to lands.

Statement of expenditures and receipts of the survey department.

EXPENDITURES.

	Balance of appropriations July 1, 1902.	Drawn July 1, 1902, to June 30, 1903.	Unexpended balance.
Salaries of surveyor, meteorologist, and assistants	\$11,500.00	\$11,500.00	.....
Expenses of field parties and office work	26,903.02	26,819.89	\$83.13
Publishing maps	911.04	894.04	17.00
Meteorology	535.50	534.30	1.20
Total	39,849.56	39,748.23	101.33

RECEIPTS.

Sale of published maps	\$67.50
Blue prints, tracings, and data furnished	167.20
Rating chronometers	15.00
Sale of 1 mule	40.00
Total	289.70

UNFINISHED AND NEW WORK.

Survey of government lands for settlement purposes and survey of disputed or unsettled boundaries of government lands.

REPORT OF TERRITORIAL METEOROLOGIST.

Records of daily rainfall have been received from 40 stations on the island of Hawaii, 4 of these being new ones started within the year. Ten stations on Maui have reported, and 3 that began the year have dropped out; efforts will be made to get the back records of these places and to have the reports continued. Oahu has 29 stations reporting and Kauai 16, making a total of 95 stations in the group, an increase of 15 stations since my last report. These records are made by volunteer observers and the monthly totals published in the Honolulu papers about the 15th of the succeeding month.

In addition to rainfall reports, 14 stations make temperature and direction and force of wind observations and also brief notes on the weather. Four observers make daily observations of humidity and two send barometer readings in addition to the above.

The publication of these observations, as well as those of the outstations, in permanent form begins with the year 1892, and at the time of my last report ended with the year 1898. During the past year the reports have been brought up to the beginning of the present year, and when funds for the purpose became available, July 1, were turned over to the printer and are now going through the press.

Every month a summary, including the averages, changes, and comparison of normal meteorological conditions and the rise or fall of the artesian wells, is published in the local papers. This includes also the average temperatures and other items from outside stations, especially the percentage of district rainfall as compared with normal.

The daily conditions are telephoned to three daily papers—two evening and one morning. The latter has also furnished to it the forecasts for the day, which has proved in a measure successful. One morning and one evening paper have the predicted tides and a table of the sun and moon furnished them weekly, and a weekly table of meteorological conditions is published in a morning paper.

In addition to the above a full report is made to the Chief of the United States Weather Bureau at Washington and is published by the organ of that Bureau, the United States Weather Review, the editor of which has shown a special interest in this station.

The United States Hydrographic Office of the Navy Department also receives monthly reports from this office. Our published annual reports are sent to the leading observatories and weather offices abroad, and publications received from them in exchange add valuable matter to the archives of this office.

TIDES.

The automatic tide gauge in Honolulu Harbor is under the charge of this office and is in continuous service, this being one of the most important stations of the

world. Duplicates of the records have been sent to the tidal division of the United States Coast and Geodetic Survey up to June 30 of this year and will be furnished regularly at the end of every six months.

PUBLIC LANDS.

The report of Mr. Edward S. Boyd, commissioner of public lands, gives the work of the department for the year ending June 30, 1903. From this it appears that the majority of settlers during the year are white men.

It is evident that the settlement of the available lands of the Territory by farmers owning and cultivating their holdings must be of gradual growth. The large area of public lands held under unexpired leases is one reason for this. Other reasons are want of markets, cheap transportation, and sufficient good roads. Road making in the Territory, especially in those portions that have an abundant rainfall and occasional gulches, is very expensive, and constant and expensive repairs are required to keep roads in such localities in order. With almost every new area reserved for settlement new roads have to be laid out and constructed, as far as possible, though completion of such roads is often delayed to the prejudice and discouragement of the settlers.

As the farming class increases there will probably be developed among them organizations to facilitate the marketing of their products. The need of such cooperation already exists, as the farmer, single handed, has serious difficulties to overcome in disposing of his produce.

The most promising crops for the Hawaiian farmer at the present time are probably those for which there is a demand outside of the Territory, such as pineapples, castor-oil beans, and sisal. Undoubtedly, also, there is a good outlook for the production of vegetables for the Pacific coast demand during the winter months.

Experiments are being made with tobacco and the vanilla bean, which, if successful, will add materially to the farming resources of the Territory. Those weighing the question of coming here to take up land for cultivation should consider the fact that a great part of the lands of the Territory suitable for farming are capable of cultivation the year around, and the proprietor may obtain nearly everything his family consumes from the ground except groceries, flour, dry goods, lumber, and hardware; as to articles under the heading of groceries, he may produce his own butter, eggs, salt pork, lard, and preserves.

The table of plants of value given under the title of agriculture will be of interest to prospective settlers.

REPORT OF THE COMMISSIONER OF PUBLIC LANDS.

The following tracts of land were surveyed and divided up for disposition during the year:

Kalaoa-Ooma, North Kona, Island of Hawaii.

Kiolakaa-Keaa, Kau, Island of Hawaii.

Papa II, South Kona, Island of Hawaii.

Rose Settlement Association, Puna, 27 miles Olaa road, Island of Hawaii.

Brughelli Settlement Association, Puna, 24 miles Olaa road, Island of Hawaii.

Twenty-seven and one-half mile tract, Olaa, Puna, Island of Hawaii.

Lualualei, Homestead tract, Waianae, Oahu.

From lands surveyed and opened during the period (including a number of lots remaining from the former period) the following lots have been taken up under the various systems of the land act:

Lands taken up under the general provisions of the land act of 1895.

[Other than cash sales and Oiaa purchases under special conditions, Part IX.]

Land districts.	Right of purchase leases.			Cash freeholds.			Special agreements.			Homesteads.	
	No.	Acres.	Value.	No.	Acres.	Value.	No.	Acres.	Value.	No.	Acres.
First, Hilo and Puna.....	159	11,597.64	\$31,989.88								
Second, Hamakua and Kohala.....										7	54.34
Third, Kona and Kau.....	24	5,669.98	7,898.94	4	61.55	\$269.00				6	77.72
Fourth, Maui, Molokai, etc.....											
Fifth, Oahu.....							6	3,437	\$8,074.00	3	14.18
Total.....	183	17,267.62	39,888.82	4	61.55	269.00	6	3,437	8,074.00	16	146.24

Summary of above table.

	Number.	Acres.	Value.
Right of purchase leases.....	183	17,267.62	\$39,888.82
Cash freeholds.....	4	61.55	269.00
Special agreements.....	6	3,437.00	8,074.00
Homestead leases.....	16	146.24	
Total.....	209	20,912.41	48,231.82

The above table shows an increase in land transactions by 79 holdings for the year and has fulfilled my predictions in my last year's report.

Cash sales.

	Number of lots.	Number of acres.	Purchase price.
Island of Maui.....	12	41.36	\$1,642.00
Island of Hawaii.....	1	40.00	123.00
Total.....	13	81.36	1,765.00

General leases.

Date of lease.	Lessee.	Location.	Area.	Term.	Annual rental.	Remarks.
			Acres.	Years.		
July 5, 1902	Apokaa Sugar Co.	Pouhala, Ewa, Oahu.	2.63	5	\$41.00	
Aug. 9, 1902	Hawaiian Agricultural Co.	Kaialaa-Kaioula-Mohakapu and Pohakuloa, Kau, Hawaii.	3,119.50	5	2,000.00	About 900 acres cane land, the rest barren lava waste.
Do.....	.....do.....	Forest lands between Keaiwa and Kapapala, Kau, Hawaii.	5,000	21	200.00	High forest land, leased under forest conditions.
Mar. 7, 1903	Lam Wo Sing.....	Kaneloa, Wai-kiki, Oahu.	15.15	5	45.00	
Do.....	Chang En Chong.	Ka wailoa-kai Kailua, Oahu.	72.42	10	260.00	
Do.....	J. C. Searle.....	Lots 6, 26, 27, 28, 34, and 35, Ni-nole and Wailau, Kau, Hawaii.	107	21	26.75	Rocky grazing land
June 13, 1903	Kaneohe Ranch Co.	Ka wailoa-uka, Kailua, Oahu.	525	10	225.00	Dry grazing land.

Receipts public lands department for the twelve months ending June 30, 1903.

Land revenue:

Rents—

General leases	\$94,978.57
Right-of-purchase leases	5,646.95
Olaa leases	513.06
Kaimu leases	38.22
Puukapu leases	9.75
Miscellaneous	1,318.50

Interest—

Homesteads	313.69
Special agreements	1,079.96
Cash freeholds	5.45

Office fees	424.00
Patent fees	750.00

\$105,078.15

Land sales—

Purchase of right-of-purchase leases	11,088.96
Special agreements	3,506.80
Homesteads	888.17
Cash freeholds	92.25
Olaa lots	185.05
Cash sales	2,230.00

17,991.23**Total** 123,069.38

The above shows an increase in the receipts of this commission of \$6,146.05 over and above the receipts for the year ending June 30, 1902, and it is hoped that next year the increase will be in the neighborhood of \$10,000 to \$15,000.

Statement of expenditures for the year ending June 30, 1903.

	Balance of appropriation July 1, 1902.	Drawn.	Balance.
Salary of commissioner	\$3,600.00	\$3,600.00	.....
Salary of secretary and subagent, fifth land district	2,100.00	2,100.00	.....
Salary of clerk and messenger	2,100.00	2,100.00	.....
Pay of subagents, first, second, third, fourth, and sixth land districts	3,800.00	2,880.00	\$920.00
Pay of rangers, first, second, third, fourth, and fifth land districts	2,040.00	1,990.00	50.00
Incidentals (including land-patent books, etc.)	1,889.90	1,856.97	32.93
Preliminary roads and trails	7,000.00	120.50	6,879.50
Expenses filing boundary certificates	229.40	33.54	195.86
Total	22,759.30	14,681.01	8,078.29

Appropriation made by legislature of 1903.

	Appropriation.	Drawn.	Balance July 1, 1903.
Office and traveling expenses, printing, advertising, and incidentals	\$1,800.00	\$1,519.53	\$280.47

Land patents have been issued during the year ending June 30, 1903, upon the following systems:

	Number.	Area.	Consideration.	Average per acre.
		<i>Acres.</i>		
Right-of-purchase leases	67	3,624.69	\$23,546.88	\$6.49
Homesteads	7	133.51	1,131.72	8.48
Land exchanges	22	2,224.30	781.36	35
Time payments	6	259.21	4,920.84	18.02
Cash freeholds	4	77.06	476.57	6.18
Cash sales	16	86.92	4,265.00	49.07
Total	122	6,405.61	35,122.37	5.48

Land patents issued on land commission awards during the year ending June 30, 1903.

Patent No.	Area.	Patentee.	Location.
8137	21 acres, 1 rood, 33 perches.	B. Naumu	Waimea, Kona, Kauai.
8138	246.18 acres	Wm. Harbottle	Iioli, Kona, Molokai.
8139	1.425 acres	Kaleleiki	Makakupaia, Kona, Molokai.
8140	16,687.78 acres	Keaweamahi	Pulehu-nui, Kula, Maui.
8141	7.67 acres	Julia A. Kauwa	Kaliu and Kapahala, Honolulu, Oahu.
8142	Not given	R. Keelikolani	Waipaa, Koolau, Kauai.
8143	3,921 acres	W. P. Lelelohoku	Kamalo, Kona, Molokai.
8144	265.78 acres	Kapu	Mahinui, Koolaupoko, Oahu.
8145	4 acres, 5.38 chains	Julia Kekoa	Kalauao, Ewa, Oahu.
8146	2,061.79 acres	Keelikolani	Kula, Lahaina, Maui.
8147	66 acres	Kaunuohua, for W. K. Moehonua.	Mokauea, Kalihi, Kona, Oahu.
8148	67 acres, 1 rood	Kaaha	Kulioa, Hanapapa, Kauai.
8149	753 acres	Kinimaka	Honoulimaloo, Kona, Molokai.
8150	119 acres	William Sumner	Kahololoa, Kona, Oahu.
8151	1.50 acres	Pahu	Keauhou, Kona, Hawaii.
8152	952½ square feet.	L. D. Maigret	Fort Street and Gardner Lane, Honolulu, Oahu.
8153	1.12 acres	Kaunuohua, for W. L. Moehonua.	Mokauea, Kalihi, Kona, Oahu.
8154	41 acres	M. Kekauonohi	Kaiamiki, Pelekunu, Kona, Molokai.
8155	1.50 acres	Palalauhulu	Keopu 2, Kona, Hawaii.

Surveys of public lands for settlement and other purposes have been pushed and the survey department taxed to its utmost capacity, with the result that the subdivision of several desirable tracts of land has been completed and opened during the year.

Surveys of the following tracts of land are in the course of completion:

Kamaole, Kula, Maui; Alae, Kula, Maui; Omaupio, Kula, Maui; Wailua-Keanae, Koolau, Maui; Laupahoehoe, 2 tracts, Hilo, Hawaii; Honomu, Hilo, Hawaii; Waiahole, Koolau, Oahu.

Contemplated: Waimea, Kohala, Hawaii; Waiakoa, Kula, Maui; Hanalei, Kauai.

A large area of public lands too rough for other cultivation, but with soil and climate suited to the growth of rubber trees, sisal, etc., is found on nearly all of the islands. The establishment of this or some kindred industry would give new value to public lands large in amount and now practically unused.

Of the 209 holdings taken up during the year, over two-thirds of same were taken up by white settlers, or 146 in number, the balance by Hawaiians. In the matter of allotting lots to settlers no distinction is made, only they must have the necessary qualifications and be American citizens.

In conclusion, I wish to state that this office will use its best endeavors in every way possible to settle our public lands with desirable settlers, and will encourage by literature and otherwise the migration of American farmers.

LAND SETTLEMENT.

The following tables give statements of small holdings taken up under the homestead act of 1884, amended in 1886 and 1892, and under the various provisions for land settlement enacted in land act 1895:

Homesteads under the laws of 1884, 1886, and 1892.

Nationality.	Number.	Area.	Value.
		<i>Acres.</i>	
American	47	800.95	\$8,715.34
Hawaiian	211	3,257.31	18,689.03
Portuguese	204	3,333.68	26,159.42
German	14	236.13	2,386.37
Russian	2	35.32	384.84
Japanese	39	632.17	4,705.67
Chinese	14	226.51	1,177.57
Total	531	8,522.07	62,218.24

Special agreement on time payment, land act 1895.

Nationality.	Number.	Area.	Value.
		<i>Acres.</i>	
American.....	121	8,742.72	\$70,747.49
Hawaiian.....	75	5,778.37	29,096.70
Portuguese.....	55	2,936.20	25,565.25
British.....	4	312.70	1,254.00
German.....	3	91.52	1,310.84
Russian.....	6	295.86	3,450.36
Greeks.....	3	203.88	3,254.00
Japanese.....	3	118.69	1,659.00
Total.....	270	18,479.94	136,336.64

Certificate of occupation, Part VI, land act 1895.

Nationality.	Number.	Area.
		<i>Acres.</i>
Hawaiian.....	171	2,083.91
Portuguese.....	13	92.49
Total.....	184	2,176.40

Right of purchase lease, Part VII, land act 1895.

Nationality.	Number.	Area.	Value.
		<i>Acres.</i>	
Hawaiian.....	270	14,746.90	\$57,701.91
American.....	126	9,833.62	52,218.11
Portuguese.....	121	5,876.67	36,458.09
British.....	10	725.90	4,908.70
German.....	21	4,150.85	9,743.96
Norwegian.....	4	227.28	2,935.30
Russian.....	29	1,811.75	13,608.25
Japanese.....	2	131.23	514.00
Chinese.....	1	15.50	85.65
Total.....	584	37,519.70	177,568.97

Cash freehold, Part VII, land act 1895.

Nationality.	Number.	Area.	Value.
		<i>Acres.</i>	
Hawaiian.....	18	386.38	\$1,606.16
American.....	5	148.75	1,265.55
Portuguese.....	7	336.10	1,546.80
Chinese.....	1	16.46	41.15
Total.....	31	887.69	4,459.66

SUMMARY OF ABOVE.

Systems.	Total number of hold-ings.	Total area.	Total value.
		<i>Acres.</i>	
Homesteads, 1884, 1886, 1892.....	581	8,522.07	\$62,218.24
Special agreement on time payment, land act 1895.....	270	18,479.94	136,336.64
Certificate of occupation, Part VI, land act 1895 ^a	184	2,176.40	.....
Right of purchase lease, Part VII, land act 1895.....	584	37,519.70	177,568.97
Cash freeholds, Part VII, land act 1895.....	31	887.69	4,459.66
Grand total.....	1,600	67,585.80	380,583.51

^aNo appraisements are made under this system. Rights are inalienable.

AGRICULTURE.

The following exemption from taxes was enacted by the legislature and approved April 23, 1903:

For the next five years all property, real and personal, actually in use for the production of sisal fiber, castor oil, vanilla extract, Hawaiian starch, pineapples, and manioc starch (Kasawa) shall be exempt from taxation of any kind.

The influence of this exemption upon the production of the exempted classes will undoubtedly be very stimulating.

The following is a list of such plants of value, not including timber trees or plants raised for flowers, as experience has demonstrated to be productive in the Territory. Another list names those that may be profitably cultivated as shown by the fact that they have become staple products; still another gives those that are in the experimental stage, and a fourth those whose cultivation is likely to be profitable in the Territory in the future. This list is by no means complete, but approximately covers the ground.

PRODUCTIVE.

Sugar cane.	Cauliflower.	Guava.	Muskmelon.
Coffee.	Celery.	Peach.	Watermelon.
Rice.	Pepper.	Mango.	Cocoanut.
Maize.	Radish.	Avocado.	Date.
Wheat.	Onion.	Ohia.	Lauhala.
Oats.	Garlic.	Apple.	Sisal.
Barley.	Irish potato.	Cherimoya.	Ramie.
Bean.	Sweet potato.	Papaya.	Hemp banana.
Squash.	Taro.	Fig.	Cotton.
Cucumber.	Yam.	Grape.	Castor oil.
Tomato.	Pia.	Orange.	Vanilla bean.
Beet.	Cassava.	Lime.	Cacao.
Lettuce.	Peanut.	Lemon.	Tobacco.
Carrot.	Breadfruit.	Poha.	Rubber.
Turnip.	Banana.	Blackberry.	Loulu.
Cabbage.	Pineapple.	Raspberry.	

PROFITABLE.

Sugar cane.	Turnip.	Peanut.	Lime.
Coffee.	Lettuce.	Breadfruit.	Poha.
Rice.	Radish.	Banana.	Muskmelon.
Maize.	Cabbage.	Pineapple.	Watermelon.
Bean.	Pepper.	Guava.	Cocoanut.
Squash.	Onion.	Avocado.	Sisal.
Cucumber.	Irish potato.	Papaya.	Castor oil.
Tomato.	Sweet potato.	Fig.	
Beet.	Taro.	Grape.	
Carrot.	Cassava.	Orange.	

PROSPECTIVELY PROFITABLE.

Cauliflower.	Peach.	Lemon.	Cacao.
Celery.	Mango.	Hemp banana.	Tobacco.
Pia.	Cherimoya.	Vanilla bean.	Rubber.

EXPERIMENTAL.

Tobacco.	Vanilla bean.	Rubber.
----------	---------------	---------

The farmer has to contend with expensive transportation and competition from the mainland in products locally consumed. Conditions will improve in these particulars as the farming class increases and is

able to combine for marketing produce. Goods that are in general demand in the world's market, such as canned pineapples, castor oil, and fiber, offer greater inducements to the Hawaiian farmer than the products mainly consumed locally, though the market for the latter class is a fair one.

COFFEE.

Low prices have discouraged enterprise in the production of coffee, many fields being left uncultivated and crops left ungathered. There are, however, planters who continue cultivation and harvest their crops, hoping for a rise in prices and also possible tariff protection by the Federal Government. The Louisson Brothers, who are conducting a plantation of 200 acres in the district of Hamakua, island of Hawaii, are among these. Their trees are 7 years old and under. Through the courtesy of Mr. A. L. Louisson I am able to furnish the following information from their experience.

Their land was covered with a forest jungle when they began operations. The subsoil is open and the surface is rich with accumulated humus of a long period of forest conditions. Many forest trees have been left standing, singly and in masses, for shade and wind-breaks. Clearing such land can be performed at \$25 an acre. The coffee trees are planted 8 feet apart on the triangular system, which allows 760 to the acre. They are topped at 6 or 7 feet as a rule, though some are allowed as an experiment to grow at will. If the fields are free of weeds to begin with, one laborer can take care of 10 acres. Three kinds of coffee are cultivated—Hawaiian, Java, and Guatemala. The two latter grow more vigorously and are earlier in bearing by about a year than the Hawaiian. There is no noticeable difference in the quality of the respective products. The Java and Guatemala are preferred for future planting. The obtainable average yield on this plantation from mature trees is estimated at 1,000 pounds to the acre. Wind is the great enemy of the coffee tree in Hamakua, and Mr. Louisson is very definitely in favor of growing trees as wind-breaks and also for shade, favors the *Grevillia robusta* (silk oak) and a variety of the inga, probably the inga laurina, a leguminous tree used largely for this purpose in Colombia and Venezuela with favorable results.

The cost of production of 2,000 pounds of coffee in the parchment grown on this plantation is as follows:

Cultivation	\$30
Picking and conveying to pulping mill	70
Pulping and drying	30
	<hr/>
	130
Carting to landing	4
Charges at landing	2
Freight to port of shipment (Hilo)	4
Milling at port of shipment	10
Bags for clean product	2
	<hr/>
Total	152

In milling 2,000 pounds of coffee there is a loss of $18\frac{1}{2}$ per cent, or 370 pounds, which is the weight of the parchment removed, the remainder of clean coffee, 1,630 pounds, having cost ready for shipment \$152, or $9\frac{1}{2}$ cents a pound. Freight to San Francisco, \$5 a ton; brokerage and commission charges, $3\frac{1}{2}$ to 5 per cent on sales; warehouse charges at 3 cents a bag per month; marine insurance, and fire insurance add

about 1½ cents a pound, bringing up the cost to 10.58 cents per pound when sold. Should fertilizing be necessary the cost of production would be increased to such an extent that the business would be unprofitable at present prices.

With these figures it is clear that a moderate tariff on imported coffee would not only be of a great benefit to Hawaii, but may be regarded as essential in order to place the industry upon a prosperous footing and to promote the cultivation of the available lands of Hawaii in this product. Tariff protection of home enterprises is the established policy of the United States. When coffee was removed from the list of dutiable articles none was produced in the United States. Now Hawaii and Porto Rico, not to speak of the Philippines, both coffee-producing countries, have been made a part of the American territory, and as such should be recognized in the national policy of protection. In 1892 the United States imported 640,210,788 pounds of coffee, worth \$128,041,930, or 20 cents a pound. In 1902 1,091,004,252 pounds were imported, worth \$70,982,155, or 6½ cents a pound. I am not in favor of a bounty on domestic coffee, but would recommend a tariff of 2 or 3 cents a pound on foreign coffee.

A large part of the public lands of the Territory available for the settlement of farmers are suitable for coffee cultivation. A reasonable tariff protection of this product would materially aid the Territory in improving its political future by the development of the class of citizen farmers.

A new variety of coffee tree has originated in the district of Hamakua. It grows about 3 feet high and produces well. It has not been ascertained whether the product differs in quality from that produced by the larger varieties. The possible value of this dwarf variety is in the fact that it would not have to be topped, as is the practice in the cultivation of the larger kinds. There is a growing suspicion among coffee men that the practice of topping is injurious to the tree by gradually diminishing its vitality. This is likely to be the case in that the habit of growth of the coffee tree is by an erect stem, with small slightly ascending lateral branches attached to the stem in groups. The interruption of the accustomed growth of the stem by topping is so violent an interference with the natural habit of the plant that it is likely that injury should be the result. It is a common thing to see in an otherwise healthy field of coffee trees which have been topped a considerable number that are conspicuously deficient in vigor in the upper part of the tree for 2 or 3 feet below the top; the laterals are few in number and deficient in both leaves and fruit. This condition may be, and probably is, the consequence of the removal of the growing top.

Although the dwarf variety mentioned may be deficient in size for profitable cultivation, yet if a plant could be developed from it by cross-fertilization or by mere cultivation which would reach an average height of 6 or 7 feet, it would undoubtedly be a valuable acquisition.

PINEAPPLES.

Through the courtesy of Mr. James D. Dole, now engaged in raising and canning pineapples on the island of Oahu, I am able to offer the following information on the pineapple industry:

There are at present eight considerable plantations in the Territory—one on Hawaii, one on Maui, five in the Wahiawa district on Oahu, and the remaining one near Pearl Harbor on the same island.

These plantations vary in extent from 10 to 100 acres, and from 40,000 to 500,000 plants each. There are now about 400 acres planted in pineapples on the island of Oahu.

None of these plantations have yet come into full bearing, but the production is already so large that the heavy crop, which comes in the summer months, can not be consumed in its fresh state locally (the maximum capacity of the island of Oahu, including Honolulu, being in the neighborhood of 4,000 pines per week), nor can it, with the present uncertain and irregular steamship service, limited cold-storage facilities, and inadequate system for distribution, be successfully disposed of on the Pacific coast. The pineapple planters are therefore dependent upon preservation of their fruit in tin or glass.

Two canneries are now in the field, handling such fruit as can be obtained at prices that will allow a profit for the handling.

It is generally believed that for a white farmer who can buy or lease good pineapple land in the vicinity of a cannery, and who has sufficient capital to purchase a good number of pineapple plants to start with and to carry himself for two or three years, the business furnishes a good opening.

Pineapple land on the island of Oahu is at present renting at from \$5 to \$20 per acre per annum, and pineapple plants of the variety universally planted here, the smooth Cayenne, now sell at from \$15 to \$30 per thousand. These prices fluctuate widely.

From 2,500 to 8,000 plants are set to the acre. Besides the cost of land and plants, the cost of production per acre is about as follows:

Two plowings	\$11
Harrowing, disking, etc.....	9
Furrowing (\$3 to \$7)	5
Cutting and trimming	7
Gathering, hauling, and distributing plants	4
Cultivation and weeding (eighteen months).....	18
Picking and delivering (varies from \$15 to \$30, according to length of haul)....	20
Total	74

The foregoing figures may be easily exceeded, especially if any large amount of white labor is employed. They do not include anything for the cost of overseeing the work or for sundries.

The crop takes upward of fourteen months to mature, depending upon the season of planting, the size and condition of the plants, etc., and from 5 to 10 tons of fruit is expected. It is, however, too early in the development of the business to know what average crop can be depended on, and while the Hawaiian canned pineapple has made a fair start on the market, any figures that might be given now of the prices paid in Honolulu for fresh fruit or by the canneries might be worthless and misleading to one figuring on having pineapples to sell two years or more hence. The exportation of fresh pineapples to the Pacific coast deserves more attention than has been given it the past few years.

Successful prosecution of it will call for strong and intelligent handling of the shipments on their arrival in San Francisco or Puget Sound and consignment from all the growers to one central representative rather than to numbers of competing brokers. The exports of fresh pines from the Hawaiian Islands, which reached its maximum in 1896, amounted in 1897 to \$14,160, had fallen in 1900 to \$3,422, and probably amounts at the present time to even less than this amount.

The exports of canned pineapple were as follows:

1897.....	\$348
1898.....	5,816
1899.....	3,849
1900 (the few produced were used locally).....	
1901.....	5,033
1902 (approximately).....	18,000
1903 (approximately).....	23,000

SISAL.

The present high prices for sisal, together with the exemption of property in use for its production, have stimulated the cultivation of this product in the Territory.

I am indebted to the courtesy of Mr. L. E. Pinkham, of Honolulu, for the following report on the sisal market and freight rates as bearing on the question of the profitable production of this fiber here.

While the figures and estimates furnished by Mr. Pinkham are not very encouraging to the Hawaiian producer, they indirectly suggest the importance of working up the Hawaiian product here and shipping the surplus after supplying the home market for cordage, instead of shipping away and paying freight on the raw material. There is already a considerable market for cordage in the Territory. The probable increase of the commercial importance of the port of Honolulu with the development of Pearl Harbor will add to this demand. The prospectus of the Hawaiian Sisal Company calls attention to a cordage factory established a few years ago in Yucatan for working up the raw material produced in that country. This factory, costing over half a million dollars, has been successful financially, and is doing a large business with the United States in furnishing binder twine. Its machinery was mainly from the United States.

Sisal market, New York, subject to 2½ per cent discount for cash.

[Authority: International Hawser Company, largest consumers of sisal.]

Year.	Minimum.		Maximum.	
	Rate per pound.	Rate per ton.	Rate per pound.	Rate per ton.
	<i>Cents.</i>		<i>Cents.</i>	
1892.....	4½	\$85.00	6½	\$132.50
1893.....	3½	72.50	6½	135.00
1894.....	3½	65.00	4½	82.50
1895.....	2½	50.00	4½	85.00
1896.....	2½	55.00	3½	72.50
1897.....	2½	67.50	3½	72.50
1898.....	3½	72.50	11½	225.00
1899.....	6½	122.50	9½	192.50
1900.....	4½	85.00	9½	190.00
1901.....	5½	107.50	9½	197.50
1902.....	7½	155.00	10½	212.50
1903.....	7½	150.00	8½	170.00

Practically all sisal is shipped from Progreso, Yucatan.

Average price at port of export alongside of vessel.

[Authority: United States Statistical Bureau of Agricultural Department.]

Years.	Per ton.	Freight to New York.	Price per ton in New York.
1892 to 1896.....	\$84.15	\$3.85	\$88.00
1897 to 1901.....	108.03	3.85	111.88

The immediate occasion of the advance in price was the Philippine war and the scarcity of manila hemp.

Prices of other cordage fibers at port of export.

[Authority: Agricultural Department, Statistical Bureau.]

	Years.	Per ton.
Manila hemp	1892 to 1896	\$112.88
	1897 to 1901	114.99
Jute	1892 to 1896	28.44
	1897 to 1901	31.60

Market prices at New York June 15, 1903.

	Spot.		To arrive.	
	Per pound.	Per ton.	Per pound.	Per ton.
	<i>Cents.</i>		<i>Cents.</i>	
Sisal	8½	\$167.50	7½	\$157.50
Hemp			7½	157.50
Jute	3½	72.50	3½	65.00
Bagging jute			2½	42.50

Sisal is largely used for binder twine in harvesting small grains. In California none is used for this purpose, as the grain cures on the stalk; hence the Pacific coast demand is very limited, the San Francisco market consuming only 1,200 tons, or the product of from 2,000 to 2,400 acres. This limited trade will be competed for by the Hawaiian Islands and Lower California, where cleaning machinery of three times our capacity is now installed, if I am correctly informed.

It is evident from this the Hawaiian-grown sisal will have to seek a general world's market, and New York is the only available one.

Sisal is unprotected by a duty, and particularly with a lower tariff sentiment growing it is very doubtful if any party will dare impose a duty on an article that affects the farmers, especially for an insignificant political entity like Hawaii.

The main factor in raising sisal in Hawaii is the value of land and the enormous disadvantage of reaching a market. Land held at much over the price of grazing land is impossible except in times of unnatural prices, as at present. High prices lead to substitutes. At present "winegrass" binder twine is on the market at 6½ cents per pound, against sisal at 11 to 13 cents per pound. Jute is being substituted.

The quotations on jute show how chimerical is the idea of substituting sisal for jute in sugar bags.

FREIGHTS.

Freight rates are based on 40 cubic feet to the weight ton of 2,000 pounds or 2,240 pounds. For convenience we will take 40 cubic feet equals 2,000 pounds. Ordinarily rates are quoted on weight tons. At present sisal measures 128 cubic feet to the weight ton and is subject to a charge of three and one-fifth times the going rate. In other words, if the sugar rate is \$2.50 to San Francisco, the sisal rate would be \$8, or if the sugar rate be \$3 the sisal rate will be \$9.60.

The Hawaiian-American line has made a special rate of \$6 per ton to San Francisco.

On the present basis of 128 cubic feet per ton of sisal at a corresponding rate to the going rate on sugar, i. e., \$9, the Hawaiian-American line would charge \$28.80 per ton on sisal to New York.

If compressed more compactly, sisal might be carried on their three shelter-deck steamers in quantities of not over 500 tons at about \$15 per ton.

For extra insurance and interest we must add at least \$1 per ton, making the cost \$16 per ton from Hawaii tide water to New York, against \$3.85 from Progreso to New York, or at a disadvantage of \$12.15 to Hawaii.

To reach the Chicago market by rail from San Francisco, sisal takes fourth classification, and the fourth-class rate is \$1.90 per hundred pounds, or \$38 per ton. Cocoanut fiber, heavier than sisal, has a special rate of \$15 per ton. It is doubtful if the railroads would make this rate, as they need west-bound freight to fill empty cars, but not east bound.

Anyway, at \$6 to San Francisco and \$15 to Chicago we must compete with sisal from Progreso at \$3 per ton to Gulf ports and \$3.60 per ton rail freight, time two weeks, or \$6.60 per ton, against \$21, a difference against us of \$14.40 per ton.

It is very unsafe to base enterprises that must stand for long periods on unusual market conditions.

The report of the United States Agricultural Department for the years 1892 to 1896 is the safest basis on which to estimate.

Average value of sisal per ton at Progreso	\$84.15
Add freight to New York	3.85
	<hr/>
Average value in New York	88.00
Deduct freight, Honolulu to New York	19.20
	<hr/>
	68.80
Deduct interest and insurance	1.00
	<hr/>
	67.80
Deduct local freights or inter-island charges, etc	5.00
	<hr/>
Net per ton to the grower at landing	62.80

As the sisal fiber shipped to San Francisco from Hawaii is manufactured there into cordage, etc., it may be that the market for our fiber on the coast is a better one than Mr. Pinkham's estimate.

The following information in relation to the production and marketing of sisal fiber I have taken from the report of Mr. B. F. Dillingham on the "Cost of the production of sisal fiber" to the Hawaiian Fiber Company, Limited. This report covers the whole history of the work of the company, a period of four years and two and one-half months, and is the only experiment in producing and selling the raw material which has so far been carried through in the Territory.

Cost of planting and cultivating per acre for four years and two and one-half months is, labor \$26.77, and other expenses \$17.57, making a total of \$44.34.

This company expects to harvest about nine crops from one planting, beginning in the fourth year, taking off three crops every two years. Besides the expenses of harvesting, it does not estimate any further cost for cultivating after the plants are mature, though in other localities where there is a greater rainfall some subsequent weeding would undoubtedly be necessary. In relation to this item I notice by the report that the \$42 in the table below for "harvesting, cleaning, and baling" includes

the weeding of the plants from which the leaves are taken, though the cost of such weeding is not given.

The report estimates a yield of 3,000 pounds of fiber per acre during each two years, an annual yield of 1,500 pounds, or 1,000 pounds from each cutting. The first cutting was below this estimate, being an average per acre of 743.59 pounds.

The next cutting being the first cutting of a new field of 185 acres, to have been made in July, is estimated at 90 tons of fiber or 973 pounds per acre.

Cost per ton of fiber delivered at San Francisco.

Cultivation	\$9.86
Harvesting, cleaning, and baling	42.00
Team, etc.	7.99
Fuel and machine oil	14.90
Rent of land	9.75
Freight and insurance	13.60
Total	98.10

The report estimates a probable reduction of the cost per ton to \$74 upon the following table:

Cultivation	\$9.86
Harvesting, cleaning, and baling	35.00
Team, etc.	5.00
Fuel and machine oil	5.00
Rent of land	6.30
Freight and insurance	10.00
Taxes and incidentals	2.84
Total	74.00

As there are no local taxes on the property used in the production of sisal the new item of taxes must refer to taxes payable on the product. The reduction of the cost per ton is probably a very practical matter, as new enterprises are usually more expensive in their inception than later when those carrying them become better acquainted with the work. It would seem that the first item of \$9.86 for cultivation might be materially reduced, as the details of this item reported include such charges as promotion and legal expense.

With the cost reduced to \$74 a ton, Mr. Pinkham's table of prices for the past twelve years, above quoted, shows six years out of the twelve when sisal production here would have been profitable at the minimum prices quoted, and ten years at the maximum prices. At the present cost of \$98.10 a ton there are four years out of the twelve when the business would have been profitable at the minimum prices, and eight at the maximum.

This company is constantly increasing its area of cultivation, which now includes 847 acres, and it expects to add 500 additional acres during this year, 1903.

A new company for producing sisal and other crops, which calls itself the Hawaiian Sisal Company, Limited, has recently issued a prospectus. It proposes a capital of \$250,000, in shares of \$10, and plans to cultivate lands on the windward side of the island of Oahu, where it claims to have control of 12,700 acres which it will plant in sisal at the rate of over 3,000 acres a year until nearly the whole tract is under cultivation.

Besides sisal, the company plans to cultivate a variety of crops, including other fiber plants and tobacco, castor-oil beans, cassava, and pineapples.

The soil in the locality mentioned for this enterprise is well suited to the cultivation of sisal, castor-oil beans, pineapples, cassava, and

probably the other plants named. The land is well furnished with water from perennial streams and enjoys an abundant rainfall.

Sisal cultivation is being taken up in several of the other islands of the Territory, particularly at Mana on Kauai, at Haiku on Maui, and on Molokai.

SUGAR.

A dangerous enemy to the sugar-cane plant, popularly known as the "leaf-hopper," has appeared in recent years in the Territory. Where it is present in large numbers it materially affects the productiveness of the plant to the extent of a ton of sugar to the acre, as estimated by some planters; others estimate the probable damage to be even greater. This insect, known to science as *Perkinsiella saccharicida*, has several local enemies. Others will be sought for in other parts of the world, especially in the sugar districts of Australia.

FARMERS' INSTITUTE.

This organization, dating from early in 1902, is prospering and appears to be influential in promoting an interest in agriculture. Its meetings are well attended, and are noted for the interesting papers read and the discussions carried on.

At a meeting to be held in October papers on the "Development of the fruit industry in Hawaii" and "Recent work in agricultural chemistry" will be read and discussed, and an illustrated talk on "Insects injurious and beneficial to the farmer" will be given.

The legislature of this year has appropriated a small sum to assist this body in the expense of its publications.

This increased demand for plants may be credited to the growing interest shown by the sugar-plantation companies and others in the promotion of forests upon such of their lands as at present are not available for the planting of cane or other agricultural crops.

In the past year there has been distributed from the nursery 18,808 plants purported to have been used for forest planting, consisting of the following varieties: Ironwood, or Australian beef-wood (*Casuarina equisetifolia*), stands at the head of the list as being the most desirable for almost all localities. Following this comes the *Eucalyptus robusta*, *E. globulus*, *E. citriodora*, and the silk oak (*Grevillea robusta*).

Stock taken June 30 gives a total of 44,325 plants ready for distribution. This number embraces about 131 species.

Mr. Koebele, while absent on his recent trip to Mexico, obtained and forwarded 58 kinds of seeds and plants. Out of this number about 28 are at present growing.

The nursery has carried on experiments with hops, the young plants having been sent from San Francisco, and were transplanted February 9. These plants made a good start, but were soon attacked by the Japanese beetle, and the growth very much retarded. There were two varieties of rooted-grape cuttings, Nicaragua and Martha, sent from the Agricultural Department at Washington, D. C. The cuttings were planted according to directions given on the packages. They have not started very well, but the indications are that they will improve.

In the latter part of May the seeds of two species of California red-woods were planted, the *Sequoia gigantea* and *Sequoia sempervirens*. The seeds were slow in germinating, and the plants have made but little

growth. Seeds of the bull pine (*Pinus ponderosa*), the *Pinus maritima*, and the stone pine (*Pinus pinea*) have been planted with varied results, germination having been unsatisfactory.

Through the kindness of Mr. Knudsen, of Kauai, the nursery secured a few seeds of the teak tree (*Tectona grandis*), the well-known timber tree of the East Indies. From these seeds we have about 18 healthy plants which will be ready for distribution. The seed of the parent tree was brought here by Doctor Hillebrand in 1865, and was planted on the island of Kauai.

We have carried on a series of experiments in the use of insecticides, and have met with varied success. Among the washes that have been tried, we find that the best results are obtained from the use of resin soap and kerosene emulsion. However, the most satisfactory method of destroying insect life on plants is by fumigation with hydrocyanic-acid gas. In the 16 or 20 experiments tried up to June 30 with a large variety of plants, including the maidenhair fern, we have not a failure to record.

Mr. William S. Hall, chief of the division of forest extension, Bureau of Forestry, is now in the Territory, having been detailed by the Bureau to investigate the condition of the Hawaiian forests and consider measures necessary for their protection and development. Mr. Hall, with members of the Territorial commission of agriculture, and others acquainted with localities visited, has carefully inspected the forests of the islands of Oahu, Molokai, Maui, and Hawaii, and will shortly take up the investigation of the forests of the island of Kauai.

Although it is as yet too early to expect his report on this subject, it is understood that he has arrived at the following conclusions, i. e., that the Territorial commission of agriculture and forestry should largely expend the available appropriations at its disposal for the fencing of forests and the destruction of animals injurious to forest growth, and that recommendation be made to the Bureau of Forestry for an expert forester to take charge of the work of introducing and experimenting with varieties of trees new to the Territory and to supervise such forestry work as is being carried on both by the government and private parties.

From his observations so far, Mr. Hall is of the opinion that in the Hawaiian Islands forests have a favorable influence on the rainfall, and that an important feature of forestry work here will be the determination of location and extent of areas to be forested or kept in forest for the maintenance and development of meteorological conditions favorable to agriculture. It is his opinion that the local enemies to trees are insects and the grazing of live stock in the woods; to this may be added forest fires.

FORESTRY.

NUUANU VALLEY.

The enterprise of reforesting this locality has been both difficult and interesting. This valley runs back from Honolulu 5 or 6 miles, reaching an elevation of the valley bottom of 1,200 feet. Its width varies from 1 to 2 miles. The lower part of the valley is occupied with residences, the upper third being the field of this enterprise. The rainfall of this part is very considerable, averaging 128.88 inches per annum for the eleven years from 1890 to 1900, both inclusive.

At the head of the valley is a gap in the main mountain chain, through which into the valley the wind rushes with great force, making the cultivation of trees very difficult near this gap.

This work was begun five or six years ago, the planting having been begun at this windy part of the valley.

The forester, Mr. David Haughs, reports that only four kinds of trees out of over thirty tried have succeeded in this exposed part, one of the successful trees being the *Eucalyptus robusta*. In other and more sheltered places the enterprise has been prosperous. The trees are first raised in seed boxes and then transplanted into leaf pots made of the leaves of the ti plant, *Cordyline terminalis*, and when from 12 to 18 inches high they are planted out, pot and all.

During the year ending June 30, 1903, the following number and varieties of trees have been planted out:

In exposed places:

4,500 *Acacia melanoxylon*.
5,000 *Casuarina equisetifolia*.

6,500 *Eucalyptus robusta*.
6,000 *Grevillea robusta*.

In small gulches and sheltered places:

500 *Acacia koa*.
1,000 *Aleritus moluccana* (Kukui).
1,500 *Catalpa kaempferi*.
500 *Maba sandwicensis* (Lama).
1,500 *Myoporum chrysophylla* (Naee).

250 *Ochrosia sandwicensis* (Hoolei).
250 *Sophora chrysophylla* (Mamani).
2,500 *Syncarpia laurifolia* (turpentine tree).

Mr. C. J. Austin, gardener of the government nursery, reports the following about his work:

The distribution of plants has shown a marked advance over that of the previous year in point of numbers, notwithstanding the fact that the nursery has been closed for the last three months of this period on account of being infected with insect and fungous blights.

The number of plants distributed during the fiscal year has reached the total of 44,196, which is an advance of 11,855 over the distribution for the year ending June 30, 1902.

FERTILIZERS.

Two companies in Honolulu manufacture and sell some 35,000 tons of fertilizer per annum, at about \$45 a ton, or \$1,500,000 in the aggregate. The materials from which this fertilizer is manufactured come mainly from other parts of the world. Several thousand tons of guano are brought annually from Laysan Island, in the Hawaiian group. Nitrate of soda, sulphate of ammonia, sulphate of potash, muriate of potash, double manure salts, kainit, superphosphate, and double superphosphate are imported mainly from Europe; dried blood, tankage, fish guano, superphosphates, and Florida phosphates are brought from the mainland. A small quantity of material is obtained at Honolulu.

The whole of this product is consumed in the agricultural enterprises of the Territory.

LABOR.

This subject presents difficult questions. Among mechanics there is some development of unions for controlling the skilled-labor market, and especially shutting out aliens. Unskilled labor is performed mainly by Hawaiians, Portuguese, Japanese, and Chinese. Many Hawaiians and Portuguese are skilled mechanics. The Japanese and

Chinese are competing in this field and are formidable on the ground of their lower wages rather than the quality of their mechanical performance, which falls behind that of the Anglo-Saxon as regards work not especially oriental.

I have asked the president of the Builders' and Trades Exchange of Honolulu, Mr. A. Gartley, for assistance in the consideration of this inquiry, and he has, with the cooperation of other members of the exchange, furnished me with a thoughtful contribution, from which I offer the following:

Now that the Territory has been placed under American institutions, it is imperative that those institutions should be maintained by American citizens.

The problem of building up a large body of intelligent and substantial citizens in this Territory comparable to the great classes in the States who hold the controlling power of the ballot is a difficult and complicated one, and presents not only political, but social and racial conditions which do not exist elsewhere.

The Territory is isolated, the cost of living is generally higher, there is no large contiguous territory to regulate the supply and demand for labor, and the opportunities of the American mechanic are limited, while the opportunities of an unskilled laborer are not at all satisfactory. This makes the field for employment extremely narrow.

Competition of the Oriental is the main complication, however. The Oriental survives by a lower standard of living and on a correspondingly lower rate of wage. He is extremely industrious and finds favor in the eyes of many employers through this industry. In the more skillful trades he is a close imitator, but his competition at the present time is limited, and it is a question if he has the intellectual equipment necessary to fully understand the principles of the crafts which he undertakes. The Caucasian has acquired these by inheritance and by many generations of congenial association. In all skilled labor the Oriental ceases to become an important factor as a competitor when he demands for himself and his family an American standard of society and livelihood.

The fact remains that the Oriental alien is and must be an overwhelming economic factor in this Territory. Practically no substitute has been found for his labor in the one industry upon which this Territory depends. There is no competition from citizen labor for the Oriental in field work on the plantations. No other adequate industry has been found to which citizen labor can turn.

Without a substantial increase in white immigration the Hawaiian-born Oriental may produce serious complications in the control of affairs, and the embarrassing situation of having American institutions, instituted by Americans, placed in the hands of Orientals may occur.

There is being created in the Territory of Hawaii a marked sentiment toward the correction of errors which have crept into the labor conditions in the past.

The people of the Territory of Hawaii must encourage and increase its intellectual and patriotic citizenship for the successful maintenance of popular government.

Both the Federal and the Territorial governments are working out agricultural problems which, it is believed, will give us a substantial agricultural population of independent farmers.

The Territorial authorities were convinced that the patronage of the Territory and its political subdivisions should be confined to its citizens and those eligible to become such, and, further, that all contracts with the government should be executed by such citizens only. The recent legislature passed a law to that effect. The law also prescribes that the hours of labor should be fixed, and that eight hours' actual work should be considered a day's labor, and that mere attendance should not be considered or countenanced.

The Territorial government has gone to the limit of its constitutional authority in protecting the citizen in regard to labor. In view of the large contemplated Federal improvements in this Territory, it would seem the unquestionable duty of the Federal Government to sustain its citizens, equally with the Territorial government, by an enactment of Congress or Executive authority through the Departments, stipulating that citizens and those eligible to citizenship only shall be employed on Federal work in the Territory of Hawaii, whether directly or indirectly employed.

The combined action of the Territorial and Federal governments would have a very profound and wholesome influence on private sentiment and practice and encourage an American spirit of loyalty, a desirable immigration, and lay a broader, deeper, and more patriotic foundation to enlightened citizenship.

SECOND GENERAL ELECTION.

The registration of voters by representative districts was as follows:

Island of Hawaii:	
First representative district	1, 548
Second representative district	1, 451
Islands of Maui, Molokai, and Lanai:	
Third representative district	2, 125
Island of Oahu:	
Fourth representative district	3, 403
Fifth representative district	3, 159
Islands of Kauai and Niihau:	
Sixth representative district	1, 038
Total	12, 724

According to the inspectors' returns, the following votes were cast in the several representative districts, respectively:

First	1, 478
Second	1, 379
Third	2, 017
Fourth	3, 130
Fifth	2, 813
Sixth	986
Total	11, 803

The vote for Delegate to Congress by representative districts was as follows:

Candidates.	Total votes.	First district.	Second district.	Third district.	Fourth district.	Fifth district.	Sixth district.
Jonah Kuhio Kalaniana'ole, Republican	6, 628	869	830	969	2, 002	1, 352	606
Robert W. Wilcox, Home Ruler	4, 698	562	485	944	1, 022	1, 350	335

Of the 7 senators to be elected by the general election of November 4, 1902, there were elected 6 Republican senators and 1 Democratic senator.

Of the 30 representatives to be elected, there were elected 20 Republican representatives, 9 Home Rule representatives, and 1 independent representative.

THE LEGISLATURE.

The senate was convened in special session November 20, 1902, to consider questions raised by the misconduct of certain executive officers of high position, which matters were disposed of according to full reports on the subject heretofore forwarded to your Department.

The senate also at this session acted upon a number of executive appointments and nominations submitted to it by me.

The expenses of this session were \$4,028.70.

The regular session of the legislature for 1903 met according to law on Wednesday, February 18, and sat sixty days, passing 88 bills and 6 joint resolutions that were approved. Much important legislation was enacted, prominent in which is the county act, embracing 92 chapters and 510 sections, and covering 140 printed pages; an act to provide for the encouragement and protection of agriculture, horticulture, and forestry; an act providing for the compilation of the statute laws of

the Territory; an act establishing the Torrens system of registration of land titles; an act allowing appeals, exceptions, writs of error, or other proceedings for review of judgments for contempt on questions of law, and recognizing the right of review on habeas corpus, as recently permitted; legislation relating to the supreme and circuit courts, to criminal practice and procedure, and to the jurisdiction of district magistrates, consisting mainly of amendments to existing laws necessary or desirable partly on general principles and partly on account of the changed political status.

Appropriations made at this session aggregated \$1,027,084.55, of which \$155,546.70 represents the Chinese fund, which was made a government realization and appropriated for the payment of those interested.

At this session the senate initiated the practice of separate appropriations for the expenses of the senate and house, respectively, for the reason, as stated in the report of a special committee of the senate—which report was adopted by that body—that “heretofore it has been the custom to appropriate money to defray the expenses of the legislature in gross—that is, one sum to pay the expenses of both of its branches. By so doing it has almost been impossible for the public to know how much money has been spent by each branch.” Under this arrangement the senate expended \$19,586.23 and the house \$39,795.15, without including the cost of publishing its journal.

The legislature failing to pass appropriation bills in the regular session for current expenses of the government and meeting its legal obligations, it was immediately convened in extra session on the 30th of April, according to the requirement of section 54 of the organic act, for the consideration of such matters. The extra session sat sixty days, passing 17 appropriation bills and a bill amending an appropriation act of the regular session. One of such bills appropriated \$2,460,470.75 out of moneys to be received under the provisions of a loan act passed at the regular session. The appropriations passed to be paid out of the current revenues aggregated \$5,004,544.51.

The expenses of the senate at this session were \$7,584.18, not including the cost of publishing the journal, which was provided for by the regular session. The expenses of the house in the extra session were \$12,986.20, not including cost of publishing journal, which cost for the house journals of both sessions had reached the sum of \$4,659.48 on September 30, 1903.

It is apparent from these figures, together with those of the expense account of the legislative sessions of 1901, as compared with the legislative expenses of former years, that the two first legislatures of the Territory have wasted the public funds by expenditures for their own expenses far beyond the necessities of the case.

Appropriations for legislative expenses from 1870 to 1903.

UNDER THE MONARCHY.

Session of—		Session of—	
1870.....	\$15,000.00	1884.....	\$40,000.00
1872.....	15,000.00	1886.....	50,000.00
1874.....	16,362.15	1887 (special).....	10,000.00
1876.....	21,500.00	1888.....	25,000.00
1878.....	16,500.00	1890.....	35,000.00
1880.....	20,000.00	1892 (lasting seven or	
1882.....		eight months).....	42,000.00

UNDER THE REPUBLIC OF HAWAII.

Session of—		Session of—	
1895 (special)	\$15,000.00	1898 (actual expenses,	
1896	26,300.00	\$28,562.14)	\$35,000.00

UNDER THE TERRITORY OF HAWAII.

Sessions of 1901 (actual ex-		Sessions of 1903 (actual ex-	
penses, \$94,654.94)	\$94,666.00	penses, \$84,611.24)	\$87,471.30

The extra sessions held in 1901 and 1903 afford no justification for these large expenditures, as the work of the two sessions of these years covers the same ground as the work of the regular sessions in former years, which were sometimes protracted to periods of from five to eight months. The two sessions of 1901, costing the Territory \$94,654.94, enacted but 27 bills which became laws, besides several joint resolutions.

The senate in 1903 was economically managed, its expenses, including the cost of publishing its journal, being slightly over one-half the expenses of the house, without including the cost of printing its journal, for which \$7,000 was appropriated.

There is no valid reason why the expenses of the house should be greater than those of the senate, except the slight increase required for stationery, stamps, etc., for its larger membership. The work required of the senate is greater than that required by the house through its duties of passing on executive appointments and nominations.

Under this showing some check upon the expenditures of the Territorial legislature appears to be called for. I would recommend that such expenses should be paid only through the auditor's warrants on the treasury, with authority in the auditor to refuse warrants for charges for services of persons employed by the senate or house or for bills for materials until satisfied that such charges are reasonable for the work done or the materials furnished.

The legislature of 1901 and the lower branch of the legislature of 1903 have withheld from the secretary of the Territory their accounts of such expenses and the vouchers pertaining thereto.

THE COUNTY ACT.

On the 22d of April, 1903, "An act providing for the organization and government of counties and districts and the management and control of public works and public institutions therein" was approved. On the same day I sent a message to the legislature, of which the following is a copy, recommending certain amendments to the said act:

I have approved the county bill "providing for the organization and government of counties and districts and the management and control of public works and public institutions therein."

There are, however, some features of the law which are, in my opinion, objectionable, and which should, for the sake of the clear understanding of such law by the public and its successful application to the objects intended, and for removing as far as possible all legal complications from the administration of public affairs under its provisions, be removed by amendment.

These objections are as follows:

Section 476 provides that "all property in the hands of any road authorities within the Territory on the 4th day of January, A. D. 1904, shall become the property of the county in which the same is located."

Section 477 provides, referring to the transfer of jail property to counties, that "all property so transferred shall be the property of the county."

Section 268, division 13, provides that "all fees or costs * * * arising from the sale or lease of property by this or any law of the Territory placed under the control of such county," "shall be payable into the treasury of the county and used for paying county expenses."

As the greater part of the property which will be turned over by the Territorial government to the counties upon their organization will be public property which was transferred by the Republic of Hawaii to the United States under the joint resolution of annexation, and by the United States placed in charge of the government of the Territory, to be cared for and maintained by it for its own use "until otherwise provided by Congress, or taken for the uses and purposes of the United States" (section 91, organic act), the above provisions making such property the property of the counties, to be sold or leased by them, is an attempt to amend section 91 of the organic act, and also section 73, neither of which can be amended except by Congress.

The provisions referred to are unnecessary for the due administration of county government, as section 482 provides that it is "the intention of this act that in all cases where by this act any county officer or board is charged with the performance of any duties heretofore performed by Territorial officials the use of all property heretofore used by such Territorial officials, for the discharge of such duties shall be transferred to such county officer or board."

Chapter 69, relating to the transfer of Territorial waterworks to the counties where such waterworks are situated, is of doubtful legality, as being inconsistent with section 91 of the organic act above referred to, for the following reason: Although under the provision of the organic act (section 56) authorizing the legislature to create counties and town and city municipalities * * * and provide for the government thereof, such public property belonging to the United States but held by the Territorial government, which is obviously necessary for the internal administration of such subordinate governments, may be turned over to such governments for such purpose, the legislature has no power to go further, and the Territorial government may not, under the responsibility imposed upon it by section 97 and section 73, surrender such property as is not necessary for the internal administration of such subordinate governments.

It can not be reasonably argued that the conduct of waterworks is essential to the administration of county or municipal governments. It is a common status in many cities on the mainland that the water used by the inhabitants for domestic purposes is furnished by private companies.

The same reasoning applies to the proposed transfer of the apparatus and equipment used by the Territorial government in lighting streets and public buildings, as provided in chapter 70.

Section 171 provides that "the duties required by the provisions of chapter 19 of the civil laws of 1897, to be performed by the commissioner of boundaries, shall be performed by the county surveyor of the county in which the lands in question are situate."

Section 172 provides that the fees to be paid such commissioner of boundaries shall be paid into the county treasury.

These sections attempt to amend section 73 of the organic act, which provides that the laws of Hawaii relating to the settlement of boundaries, except as changed by such act, "shall continue in force until Congress shall otherwise provide."

Section 384 provides that the Territorial board of public institutions shall provide for the care, maintenance, and employment of all inmates confined in any penal "institutions in the Territory."

This provision conflicts with the twenty-second division of section 22, which gives county boards of supervisors jurisdiction and power to provide for the working of prisoners confined in county jails under conviction of misdemeanor; and also with division 6 of section 90, which provides that the county sheriff shall "take charge of and keep the county jail and prisoners therein."

Section 483 provides that "immediately after the passage of this act it shall be the duty of the Territorial board of public institutions by this act provided for to organize in the manner required herein."

As other provisions of the act refer to the 4th of January, 1904, as the time when such board shall begin to exercise its powers, the provision of section 483 must contain a mistake as to the time for its organization, which should be January 4, 1904.

There is some vagueness in the act as to the status of the superintendent of public works after the installation of county governments. I would recommend definite legislation making him the executive officer of the Territorial board of public institutions.

In view of the foregoing suggestions, I recommend immediate legislation amending the county act in accordance therewith.

A bill carrying out a portion of these recommendations was passed by the senate but failed in the house.

A more careful reading of the act discovers other defective provisions. A Territorial board of public institutions is created in chapter 64, to be composed of the governor, secretary, treasurer, auditor, superintendent of public instruction, and attorney-general of the Territory. This chapter departs from county matters and provides for the management of certain Territorial institutions, naming the capitol and judiciary buildings, charitable, reformatory, and penal institutions established and supported by the Territory, harbors, wharves, matters of pilotage and towing, with the sweeping clause that "the board shall have power to direct the general management of all Territorial institutions." These provisions would, if carried out, withdraw the management of the two reform schools from the commissioners of public instruction of the insane asylum, and the leper settlement at Kalawao from the board of health, of the penitentiary from the attorney-general, of the harbors from the United States, and of the wharves from the superintendent of public works.

Section 483 of the county act required that immediately after the passage of the act, the Territorial board of public institutions should organize, and sections 484 and 485 required the board as soon as organized, to take control of all matters relating to harbors, wharves, pilots, and towage, and of all property used in connection therewith, and to assume the control, management, and maintenance of the insane asylum and the executive and judiciary buildings.

The board organized on the 1st of May, and on the 4th of May notified the superintendent of public works that the board had assumed the control, management, and maintenance of the harbors, wharves, pilots, and towage, and requested him to deliver up the control and to furnish the board with an inventory of all the property thereof, and a list of all the employees connected therewith. On the next day, May 5, the secretary of the board received a letter from the superintendent of public works declining to accede to this request on the grounds that by virtue of his office he was charged with the control and management of the property and the work in question, and had no power to surrender such control and management; that the board had no legal existence and therefore no right to assume such control and management as claimed, that that part of the county act purporting to establish a board of Territorial institutions was illegal in that it was in contravention of section 45 of the organic act, which requires that each law shall embrace but one subject which shall be expressed in its title; that the whole act was illegal for the same reason, in that it contains more than one subject of legislation, to wit, section 267 providing for Territorial revenues, section 269 providing for Territorial charges, sections 381 to 391 creating a board of public institutions, section 407 appropriating all existing waterworks and systems, sections 415 and 416 appropriating all property used by the Territory in lighting streets and public buildings, section 417 appropriating all public markets, sections 476 to 482 appropriating and transferring property belonging to the Territorial government to the counties, sections 483 to 487 providing for the organization of the board of public institutions, and chapter 19 making appropriations of Territorial funds for the support of counties; that the legislature is without authority to modify or change the form of the Territorial government as established by the

organic act, and that the board sought to be created by the county act, is illegal in that the power of appointment of members of boards of a public character is vested in the governor by section 80 of the organic act.

The board then instructed the attorney-general to bring legal proceedings against the superintendent of public works to compel him to conform to the provisions of the county act bearing on the question, and to the demand of the board. Such proceedings were begun in the circuit court in the form of an application for a writ of mandamus to the superintendent of public works. The case was heard and judgment given for defendant on the ground that "all the sections of the county act which relate to the board of public institutions are repugnant to section 80 of the organic act and therefore void; and that they are not so intimately connected with other parts of said county act as to invalidate the latter, but that on the contrary the rest of the said county act is severable and can stand without the invalid portions." An appeal was taken from this decision to the supreme court, and the case is still pending in that court.

Section 80 of the organic act referred to by the defendant and the court, provides among other things that the governor shall nominate and, by and with the advice and consent of the senate, appoint the members of all boards of a public character that may be created by law, and may make such appointments when the senate is not in session by granting commissions which shall, unless such appointments are confirmed, expire at the end of the next session of the senate.

The provisions of the county act appropriating certain property, under the present control of the government of the Territory, raises some embarrassing questions. The greater part of this property is covered by the provisions of section 91 of the organic act, which places its control and management in the government of the Territory of Hawaii, until otherwise provided for by Congress, or taken for the uses and purposes of the United States. This enactment suggests the question whether these provisions, transferring such property from the control of the government of the Territory to the subordinate governments created by the legislature, require the approval of Congress.

These provisions transferring public property to the counties were evidently intended by the legislature as grants of ownership or title. Section 477 of the county act referring to the transfer of jails and property used in connection therewith, says, "all property so transferred shall be the property of the county and subject to the control of the board of supervisors of such county." A similar provision appears in section 476 in relation to roads and bridges. Section 22, division 6, authorizes county supervisors to sell at public auction any property belonging to the county not required for public use. Jail property is mainly real estate, a large part of the public waterworks, of the fire department property, of the public electric-lighting plant for Honolulu, and of the public markets are also real estate. Such provisions for transfer of public landed property being inconsistent with section 73 of the organic act which continues in force Hawaiian land laws until Congress shall change them would seem to require for their validity the approval of Congress.

Section 171 purports to transfer the duties and authority of the commissioners of boundaries to the surveyors of the respective counties. As the laws providing for the boundary commissioners are a part of

the Hawaiian land laws continued in force by section 73 of the organic act, this provision must also be invalid unless approved by Congress.

It would appear from these references to the organic act that the transfer of such real estate as is necessary to the administration of county affairs should have been a transfer of the use only in the nature of a trust.

JUDICIARY.

As this department has not hitherto been included in the governor's reports, I have obtained from Chief Justice Frear the following statement, which contains some comparative statistics covering the work of the department for several years past:

The judiciary department consists of the supreme court with a chief justice and two associate justices, five circuit courts with eight circuit judges, and twenty-eight district courts with thirty-two district magistrates.

There are two classes of attorneys—those admitted to practice in all the courts and those admitted to practice in the district courts only. Of the former there are about ninety-five in practice.

The supreme court and each of the circuit courts, other than the first circuit court, has a well-selected library. The supreme court library, which is used also by the first circuit court, contains about 7,000 volumes. There is appropriated for this \$750 a year and for each of the circuit court libraries \$500 a year.

During the five years that have elapsed since the annexation of these islands to the United States many difficulties have been experienced, owing to doubts as to the validity of a number of Hawaiian statutes relating to jurisdiction and procedure in view of various provisions of the Federal Constitution, and, since the enactment of the organic act, owing to the repeal, expressly or by implication, of many provisions in the local statutes. These difficulties have now disappeared for the most part, both because of the conclusion which the Federal Supreme Court reached in the Mankichi case and because of the enactment of many important statutes relating to civil and criminal jurisdiction and procedure at the recent session of the Territorial legislature.

The work of the courts has, as a rule, been kept up to date, although the number of cases has increased in many of the courts. An exception to this statement must be made in the case of the first circuit court, in which the most of the more important cases are tried in the first instance. That court has been unable to clear its calendar for many years, but, now that a third judge has been appointed to that court and its terms have been lengthened and other provisions have been made to facilitate its work there is much reason to believe that its calendar of over 400 cases will be disposed of in addition to new cases in the course of a few years.

There is a growing sentiment among the members of the bar that the number of the supreme court justices should be increased to five. There are many reasons which seem to make this advisable, among which may be mentioned the rapidly increasing work of that court.

The statistics of the judicial work of the courts are made up for the calendar years. The following will give some idea of the number and character of the cases, both civil and criminal, and the nationality of those convicted in criminal cases:

	1899-1900.	1901-2.	Decrease.	Increase.
Total civil cases.....	7, 196	5, 056	2, 140	.....
Total criminal cases.....	18, 849	21, 752	.....	2, 903
Total cases.....	26, 045	26, 808	.....	763

Supreme, circuit, and district courts.

	1899-1900.	1901-2.
Supreme court.....	136	220
Circuit courts.....	2, 388	3, 198
District courts.....	23, 272	22, 996
Naturalizations.....	249	394
Total cases.....	26, 045	26, 808

CIVIL CASES, ALL COURTS.

The total number of civil cases for the years 1901-2 was 5,056, a decrease of 2,140 from the number (7,196) for the preceding two years. About one-half of this decrease is due to the abolition of the contract-labor laws. Admiralty and bankruptcy cases also, which, however, were comparatively few in number, now go to the United States district court.

CRIMINAL CASES, ALL COURTS.

The total number of arrests during the years 1901 and 1902 was 20,752, an increase of 2,093 over the number (18,849) for the preceding two years. The total number of convictions was 16,198, an increase of 2,143 over the number (14,055) for the preceding two years.

Nationality of convicted.

	1898-99.	1900.	1901-2.	Population, 1900.	Percentage for 1901-2, by nation- ality.
Chinese	3,940	1,919	3,302	25,767	0.128
Japanese	1,932	1,480	4,716	61,111	.077
Portuguese	572	398	963	15,675	.061
Hawaiians	3,294	1,808	3,845	37,918	.101
Others	1,359	1,664	3,372	13,530	.240
Total	11,097	7,269	16,198	154,001	.105

DRUNKENNESS.

	1896-97.	1898-99.	1900.	1901-2.
Chinese	19	10	6	9
Japanese	160	134	115	363
Portuguese	86	92	105	201
Hawaiians	1,009	1,053	794	1,439
Others	588	789	1,163	1,768
Total convictions	1,862	2,078	2,183	3,775
Total arrests	2,008	2,192	2,281	3,960

LIQUOR SELLING AND DISTILLING.

	1896-97.	1898-99.	1900.	1901-2.
Arrests	623	461	205	518
Convictions	375	258	116	817

GAMBLING.

	1896-97.	1898-99.	1900.	1901-2.
Chinese	1,577	2,096	945	2,241
Japanese	971	844	588	2,201
Portuguese	11	18	23	69
Hawaiians	258	429	220	470
Others	44	82	19	116
Total convictions	2,861	3,419	1,745	5,097
Total arrests	4,146	4,358	2,060	6,209

OFFENSES AGAINST CHASTITY.

Of adultery, fornication, incest, polygamy, rape, seduction, and sodomy, the cases were as follows:

	1896-97.	1898-99.	1900.	1901-2.
Arrests	593	414	207	736
Convictions	397	267	138	432

OFFENSES AGAINST PROPERTY.

Of larceny, robbery, burglary, embezzlement, felonious branding, extortion, forgery, counterfeiting, gross cheat, and receiving stolen goods the cases were as follows:

	1896-97.	1898-99.	1900.	1901-2.
Arrests.....	945	979	531	1,128
Convictions.....	505	444	243	566

OFFENSES AGAINST THE PEACE.

Of affrays, riots, assaults, and assaults and batteries of all kinds, the cases were as follows:

	2,092	2,461	1,231	3,096
Arrests.....	1,208	1,475	668	1,900
Convictions.....				

HOMICIDES.

The cases of manslaughter were as follows:

	16	13	9	12
Arrests.....	4	8	6	5
Convictions.....				

The cases of murder were as follows:

	42	7	6	35
Arrests.....	7	4	3	11
Convictions.....				

MISCELLANEOUS.

	5,290	5,189	3,528	6,068
Arrests.....	3,136	3,144	2,167	4,294
Convictions.....				

SUMMARY OF ARRESTS.

Drunkenness.....	2,008	2,192	2,281	3,950
Liquor selling and distilling.....	623	461	205	518
Gambling.....	4,146	4,358	2,060	6,209
Offenses against chastity.....	593	414	207	736
Offenses against property.....	945	979	531	1,128
Offenses against the peace.....	2,092	2,461	1,231	3,096
Homicides.....	58	20	15	47
Miscellaneous.....	5,290	5,189	3,528	6,068
Total.....	15,755	16,074	10,058	21,752

SUMMARY OF CONVICTIONS.

Drunkenness.....	1,862	2,078	2,183	3,775
Liquor selling and distilling.....	375	258	116	317
Gambling.....	2,861	3,419	1,745	5,097
Offenses against chastity.....	397	267	138	432
Offenses against property.....	505	444	243	566
Offenses against the peace.....	1,208	1,475	668	1,900
Homicides.....	11	12	9	16
Miscellaneous.....	3,136	3,144	2,167	4,294
Total.....	10,355	11,097	7,269	15,999

DEPARTMENT OF THE ATTORNEY-GENERAL.

Mr. Edmund P. Dole, who had been attorney-general from the inception of the Territorial government, resigned the position February 1, 1903, and was succeeded by Mr. Lorrin Andrews. Mr. Dole, in his report for the first half of the fiscal year, gives the following description of the office of attorney-general of the Territory in its present status:

The attorney-general's department, being substantially constituted as it was before annexation, is an anomaly in American government. Under our law the attorney-general has the duties and responsibilities of a State or Territorial attorney-general; of all county attorneys in a State or Territory; of corporation counsel in all the cities of a State or Territory; of a State or Territorial chief of police; of the approval of all contracts for prison supplies and to a great extent of prison management; of membership in the Territorial board of health, in which all the sanitary functions of the Territory are centralized, and which is confronted with sanitary problems such as exist in no other Territory of the United States; of passing upon every bill incurred in his department, and, by usage, of membership of the governor's council, an office which in many States is not connected with any other. The discharge of the foregoing duties is made exceptionally burdensome and expensive by the delays and cost of traveling from island to island, by the fact that six languages are in daily use in the courts, and by the fact that the Territory is a great landlord and interested in divers kinds of business with which other States and Territories have no connection.

Mr. Dole further says, referring to the effect of recent political changes:

Changed conditions and the passing of one national sovereignty into another have given rise to innumerable questions, many of them without precedents in the law books. During the two and one-half years that I have been attorney-general I have written 341 legal opinions at the request of the governor, the heads of departments, bureaus, and other officials.

Mr. Andrews reports that between his accession to the office, February 1, 1903, and June 30 the work of the department has been very heavy, with large criminal calendars on the island of Oahu at the February and May terms of court, as well as terms held on the islands of Maui, Hawaii, and Kauai. In relation to the criminal work of the department, reference is made to the accompanying report of the high sheriff. In addition thereto, between February 1 and June 30 the department rendered to members of the legislature, committees thereof, and to the heads of executive departments 156 written opinions, besides disposing of a number of minor questions through oral consultations, and also presented and argued 19 cases before the supreme court, representing the Territory of Hawaii, and have begun or defended 12 civil actions in the circuit court in behalf of the Territory.

Immediately upon assuming office Mr. Andrews deputized Mr. Dole, the former attorney-general, to present the case of the Territory of Hawaii *v.* Mankichi to the United States Supreme Court in Washington, D. C., the resulting decision being in favor of the Territory of Hawaii and going to the settlement of many and vexed questions of the so-called transition period, at a great saving of expense to the Territory and the prevention of a general jail delivery of desperate characters, against some of whom the evidence had disappeared.

Of the 315 officials and employees in the department at the beginning of the fiscal year, 228 were Hawaiians, the remaining 87 being mostly of American birth or descent.

The installation of county government next January will relieve this department of the duty of attending to criminal prosecutions in the district and circuit courts. The county attorneys are made deputies of the attorney-general, who may remove them for cause shown to the satisfaction of the justices of the supreme court.

The statistics hereto attached show the work done by this department throughout the Territory during said year.

The total arrests throughout the Territory are less by 953 than during the year ending June 30, 1902.

The decrease in drunkenness has been very marked, the total number of arrests for this offense being 318 less than during the preceding year, and the preceding year showing a decrease of 728 as compared with the year ending June 30, 1901, showing conclusively, I believe, that drunkenness is decidedly on the decrease.

But few crimes of a serious nature have occurred during the past year.

Prosecutions and convictions for vagrancy have kept the jail filled with that class of people who, without any legitimate means of support, have been largely responsible for the petty thieving occurring in Honolulu during the past year.

Number of arrests made throughout the Territory of Hawaii and disposition of the same in the district courts, and amount of fines and costs imposed and paid, for year ending June 30, 1903.

Islands.	Arrests.	Convictions.	Discharges.	Fines.	Costs.	Bails forfeited.	Fines and costs paid.	Total amount imposed.
Oahu.....	5,197	3,695	1,502	\$38,536.50	\$4,514.20	\$7,554.00	\$18,614.50	\$43,050.70
Hawaii.....	2,568	1,903	665	10,517.00	1,499.80	8,716.50	4,658.85	12,016.80
Maui and Molokai.....	1,486	1,013	473	7,371.50	395.70	3,562.00	3,010.50	7,767.20
Kauai.....	716	514	202	2,036.00	343.50	3,198.50	1,680.90	2,379.50
Total.....	9,967	7,125	2,842	58,461.00	6,753.20	23,030.50	27,964.75	65,214.20

Number of arrests made throughout the Territory of Hawaii and disposition of same in the district courts, for year ending June 30, 1903.

NATIONALITY AND SEX.

Islands.	Total arrests.	Sex.		Nationality.				
		Male.	Female.	Hawaiians.	English.	Americans.	German.	French.
Oahu.....	5,197	4,976	221	1,211	71	568	157	9
Hawaii.....	2,568	2,388	180	490	6	88	19	2
Maui and Molokai.....	1,486	1,420	66	411	.....	21	7	.....
Kauai.....	716	682	34	123	4	7	1	.....
Total.....	9,967	9,466	501	2,235	81	684	184	11

Islands.	Nationality.							Discharged.	Convicted.
	Portuguese.	Chinese.	Japanese.	Porto Rican.	South Sea Islanders.	Spanish.	Other.		
Oahu.....	308	1,529	945	187	1	24	187	1,502	3,695
Hawaii.....	232	358	1,127	211	.....	.....	35	665	1,903
Maui and Molokai.....	41	306	535	153	3	.....	9	473	1,013
Kauai.....	19	107	338	115	.....	.....	2	202	514
Total.....	600	2,300	2,945	666	4	24	233	2,842	7,125

Number of arrests made throughout the Territory of Hawaii, etc.—Continued.

GAMBLING.

Islands.	Total arrests.	Sex.		Nationality.						
		Male.	Female.	Hawai-ians.	Ameri-cans.	Portu-guese.	Chi-nese.	Japa-nese.	Porto Ricans.	Others.
Oahu	1,631	1,627	4	137	27	21	1,129	302	3	12
Hawaii	647	637	10	18	.....	13	226	372	17	1
Maui and Molokai	613	613	.....	55	2	1	221	302	31	1
Kauai	247	244	3	17	.....	.....	42	162	26	.....
Total	3,138	3,121	17	227	29	35	1,618	1,138	77	14

Islands.	Dis-charged.	Con-victed.	Imposed.		Bail for-feltd.	Fines and costs paid.	Total amount imposed.
			Fines.	Costs.			
Oahu	645	986	\$7,825.00	\$633.40	\$2,291.00	\$3,695.65	\$8,458.40
Hawaii	74	573	2,267.00	178.00	2,918.00	537.35	2,445.00
Maui and Molokai	143	470	2,468.00	11.50	2,340.00	689.50	2,479.50
Kauai	26	221	380.00	39.00	1,654.00	336.00	419.00
Total	888	2,250	12,940.00	861.90	9,203.00	5,208.50	13,801.90

CASES OF SELLING SPIRITUOUS LIQUOR WITHOUT A LICENSE.

Islands.	Total arrests.	Sex.		Nationality.						
		Male.	Female.	Hawai-ians.	Ameri-cans.	Portu-guese.	Chi-nese.	Japa-nese.	Porto Ricans.	Others.
Oahu	83	73	10	11	3	18	23	21	2	5
Hawaii	58	45	13	2	2	1	25	28	.....	.....
Maui and Molokai	40	38	2	3	3	1	16	12	4	1
Kauai	12	12	.....	.....	1	.....	6	5	.....	.....
Total	193	168	25	16	9	20	70	66	6	6

Islands.	Dis-charged.	Con-victed.	Imposed.		Bail for-feltd.	Fines and costs paid.	Total amount imposed.
			Fines.	Costs.			
Oahu	24	59	\$7,875.00	\$79.10	\$300.00	\$1,743.60	\$7,954.10
Hawaii	19	39	3,695.00	128.00	575.00	1,413.80	3,823.00
Maui and Molokai	16	24	2,400.00	30.15	200.00	408.40	2,430.15
Kauai	5	7	400.00	11.70	300.00	208.30	411.70
Total	64	129	14,370.00	248.95	1,375.00	3,804.10	14,618.95

DRUNKENNESS.

Islands.	Total arrests.	Sex.		Nationality.						
		Male.	Female.	Hawai-ians.	Ameri-cans.	Portu-guese.	Chi-nese.	Japa-nese.	Porto Ricans.	Others.
Oahu	1,163	1,144	19	439	307	47	2	86	11	271
Hawaii	286	277	9	135	30	43	1	47	15	15
Maui and Molokai	108	106	2	63	5	6	.....	19	11	4
Kauai	25	24	1	13	1	.....	.....	5	3	3
Total	1,582	1,551	31	650	343	96	3	157	40	298

Islands.	Dis-charged.	Con-victed.	Imposed.		Bail for-feltd.	Fines and costs paid.	Total amount imposed.
			Fines.	Costs.			
Oahu	19	1,144	\$2,450.50	\$962.60	\$943.00	\$2,496.60	\$3,433.10
Hawaii	50	236	396.00	124.95	797.00	243.70	519.95
Maui and Molokai	4	104	210.00	38.10	143.00	204.50	248.10
Kauai	2	23	36.00	17.00	44.00	32.00	58.00
Total	75	1,507	3,091.50	1,162.65	1,927.00	2,988.80	4,254.15

MILITARY.

REPORT OF J. W. JONES, COLONEL FIRST REGIMENT NATIONAL GUARD OF HAWAII,
FOR THE YEAR ENDING JUNE 30, 1903.

ORGANIZATION.

The First Regiment consists of nine companies, a hospital corps, and band. Seven companies (A, B, C, E, F, G, and H) are located at Honolulu, D at Hilo, Hawaii, and I at Wailuku, Maui. The whole strength of the regiment on June 30, 1903, was 23 officers and 581 enlisted men; total, 604.

EFFICIENCY.

After the passage of the militia law by the United States Congress in January, 1903, the legislature of the Territory of Hawaii, in June, 1903, passed a new militia law, the laws relating to the militia of the Territory of Hawaii were codified, and new regulations issued based on the regulations for the Army of the United States.

There has practically been a reorganization of the National Guard of Hawaii since the passage of the new militia law and a steady endeavor on the part of the officers to fit themselves to perform the duties incumbent on them thereunder.

There have been appropriations made by the Territorial legislature for new armories and for the equipment and necessary current expenses of the National Guard, under which a wide range of instruction may be had, with a consequent better state of efficiency and preparedness for actual field service, and the arms, equipment, and property may be properly cared for.

The interest shown by Maj. John McClellan, commanding officer of the artillery district of Honolulu, and his officers, and the assistance rendered and instruction given by them, has done much to advance the efficiency of the First Regiment. Too much can not be said in commendation of the painstaking care and tireless energy shown by First Lieut. Harry W. Newton.

DRILLS.

In regimental, battalion, and company drills, parades, practice marches, etc., the work of the last year has done much to raise the standard of efficiency of the command, and the changes in the militia laws passed at the last session of the legislature, it is expected, will be of great benefit to the regiment.

The number of company drills, meetings for company instruction and business, and battalion and regimental drills in which the various companies participated is as follows:

Company.	Regimental drills.	Battalion drills.	Meetings for business and instruction.	Company drills.	Total drills and meetings.	Average membership.	Possible attendance.	Actual attendance.	Percentage.
A	7	2	4	36	49	43	2, 429	1, 546	64
B	7	4	2	36	49	56	2, 590	1, 597	64
C	7	4	5	59	75	45	3, 097	1, 569	52
D	0	0	0	37	37	55	3, 156	2, 343	72
E	7	2	7	55	71	58	2, 996	1, 695	56
F	7	2	0	49	58	63	3, 115	2, 598	83
G	7	4	2	34	47	51	2, 205	1, 333	61
H	7	2	1	52	62	46	3, 580	2, 047	59
I	0	0	0	43	43	31	1, 897	1, 272	70

On February 23, 1903, a competitive drill was participated in by Companies E, F, and G, officers of the United States Army acting as judges, awarding the following percentages: Company F, 99.3 per cent; Company E, 85.6 per cent; Company G, 82.5 per cent. On the same date Company B gave an exhibition artillery drill and Company H gave an exhibition in bayonet exercise and silent manual. Companies A and C furnished a guard detail to keep the parade ground clear for drill purposes.

REPORT OF E. O. PIERCE, CAPTAIN, ARTILLERY CORPS; HARRY W. NEWTON, FIRST LIEUTENANT, ARTILLERY CORPS, AND J. P. ROBINSON, FIRST LIEUTENANT, ARTILLERY CORPS, APPOINTED BY MAJOR MCCLELLAN AS JUDGES ON COMPETITIVE DRILL.

Of the companies competing, the drill of Companies E and G was very good and compares very favorably with similar organizations in the States.

The guns were in only fair condition, many of them not being properly cleaned and cared for.

The equipments of Company F were in excellent condition and its drill superb. We can candidly say we have never seen it equaled.

Of the companies competing, the drill percentages given were as follows: Company F, 99.3; Company E, 85.6; Company G, 82.5.

Of the companies not competing, the artillery drill of Company B was excellent, and especially the manner in which the guns were disabled and the infantry support handled under a supposed condition of an attack.

The bayonet exercise and silent drill of Company H was very good.

Considering the regiment as a whole, it was in very good condition and shows the result of conscientious effort.

The most noticeable errors were the very poor sword manual of the officers, with but few exceptions, and, with the exception of Company F, the manner of forming company.

In conclusion, the judges desire to say that, in their opinion, considering all the disadvantages under which all regiments of the National Guard labor, the exhibition given by the First National Guard of Hawaii on the 23d instant was most creditable.

TARGET PRACTICE.

Rifle firing has been seriously interfered with by the damaged condition of the butts and the lack of funds to properly repair them.

On July 4, 1902, the regiment had target practice with fieldpieces, Driggs-Schroeder, caliber 2.76, and Hotchkiss 2-pounders. The firing was at triangular targets, with a base and rise of 10 feet, built on pontoons anchored at a distance of 1,700 yards from the shore, and was very accurate, the targets being repeatedly hit and one of the pontoons sunk.

The following is a record of the medal shoot held in December, 1902, at a range of 200 yards offhand, 10 rounds per man:

45 or better, gold bar	2
40 or better, silver bar	20
35 or better, bronze bar	39

Total	61
Number of scores shot	180

On September 15, 1902, the companies stationed at Honolulu proceeded to Manoa Valley, arriving there at 8 a. m., and had target practice at silhouettes in volley firing at 100, 300, and 500 yards, the result of which was very satisfactory. The command returned to Honolulu at 6 p. m.

ANNUAL MUSTER AND INSPECTION.

The annual muster and inspection of the command was held on May 30, 1903, Major McClellan, commanding officer artillery district of Honolulu, being the inspector and mustering officer. The attendance was as follows:

	Membership.		Present.		Absent.	
	Officers.	Men.	Officers.	Men.	Officers.	Men.
Field and staff	10		10			
Noncommissioned staff						
Band		26		26		
Hospital corps		14		6		8
Company A	3	65	3	45		20
Company B	1	65	1	29		36
Company C	2	49	2	18		31
Company E	3	65	2	45	1	20
Company F	2	71	1	65	1	6
Company G	3	62	3	37		25
Company H	3	61	2	51	1	10
Total	27	485	24	329	3	156

The following is a report of inspection of May 30, 1903, from the report of Maj. John McClellan, artillery corps:

"I have the honor to inclose herewith inspection reports, in duplicate, of the field, staff, and band, and of seven companies of the National Guard Regiment of Hawaii. This much of the regiment is stationed in Honolulu, and was reviewed and inspected by me on May 30, instant. The two battalions make a good appearance at review and inspection. The men marched well and officers saluted properly.

"It appeared that the companies are not properly equipped for the field in several particulars, but that a requisition was made by the governor March 31, 1903, for blankets, ponchos, camp colors, tents, and camp equipage, including shelter tents, for the regiment.

"The regiment had none of the United States standard magazine arms, and no return is therefore made for them. It is sufficiently armed, uniformed, and equipped for service in the field in these islands. It has not had any practice marches nor camps of instructions during the year ending June 30, 1903; but had one regimental drill, two battalions April 19, and same day had skirmish drill, sham battle, and volley firing, 308 men.

"On July 4 regiment had field practice, and target with fieldpieces at 1,700 yards range, 337 men. In September the regiment, with 283 officers and men, had skirmish firing at 100, 200, and 500 yards. Some companies had two battalion drills and some had four.

"The regiment has been turned out a number of times for parade and review and claims to have had seven regimental drills.

"The regiment was reviewed by the governor February 21, 1903, and gave an exhibition drill, artillery drill with Hotchkiss guns, and also a competitive infantry drill between three companies, all of which were excellent, witnessed by myself and a board of officers whom I appointed as judges.

"It was inspected once during the year by its colonel.

"This regiment is called an artillery regiment and has the following armament: Eight 8 c.m. Austrian rifled fieldpieces, eight limbers for same, eight caissons for same, three 7 c.m. mountain howitzers, two Griggs-Schroeder fieldpieces, 2.76 caliber, two Hotchkiss fieldpieces, 2-pounders, two Gatling guns, model 1878.

"I would recommend that the Springfield rifle and accompanying equipments be turned in and this regiment be furnished with United States magazine arms and equipments therefor."

The following is a report of Maj. John McClellan, artillery corps, on his inspection of the First Infantry, Hawaii National Guard, on May 30 and June 5, 1903:

"The field and staff presented a good appearance at review and inspection of the regiment.

"*Company D.*—This company made a very creditable showing at review and drill, marching steadily and showing a readiness to learn drill and improve. The captain is a German, who evidently understands something about discipline, and will, if the opportunity affords, make a good company of this one; but he states that, owing to the frequent rains and to the fact that they have no armory, or proper drill shed, at Hilo, he has but few opportunities for much drill or inspection. What is reported as a drill shed, he states, is a hall where they have meetings, but have not room for much drill.

"*Company F.*—This company is extremely well drilled in company drill, and presents a neat and soldierly appearance. This is the best and largest company in the regiment and marches extremely well. Its discipline is shown by its only having six absentees from inspection. This is one of the best drilled companies of National Guard I have ever seen anywhere."

On April 19, 1903, the companies stationed at Honolulu started for Kapiolani Park at 8 a. m., and put in the day in close-order drill, battle formation, with blank ammunition, parade, etc., returning at 6 p. m. on the same day.

ENCAMPMENT.

The following order was issued by the governor, through the adjutant-general, on June 8, 1903:

"The following companies of the National Guard of Hawaii will go into camp on Wednesday morning, June 10, at the hour of 7 o'clock or as soon thereafter as practicable, at Camp McKinley for a period of five days, for the purpose of participating with the regular troops in such maneuvers and instruction as may be prescribed by the commanding officer of the artillery district of Honolulu: Companies A, B, C, E, F, G, and H, stationed at Honolulu, and Company D, now stationed at Hilo."

In pursuance of the foregoing general orders the First Regiment, consisting of the field and staff, noncommissioned staff, hospital corps, band, and Companies A, B, C, E, F, G, and H proceeded to Kapiolani Park, June 10, to take part in the five days'

annual encampment, for the purpose of participating with the regular troops in instructions to be prescribed by the commanding officer of the artillery district of Honolulu.

The command, after reaching the grounds adjacent to Camp McKinley, proceeded to pitch camp under the instructions of First Lieut. H. W. Newton, United States Artillery Corps, who had been assigned as attaché officer to the command by Major McClellan, commanding United States Artillery, district of Honolulu. Guard mount and policing camp followed. After this the usual camp routine was taken up. Instructors in cooking were sent from Camp McKinley, upon whom too much praise for faithful performance of their work can not be bestowed. Company D arrived in camp June 11 at 9.30 p. m.

Daily attendance of the First Regiment, National Guard of Hawaii, during encampment.

	June 10.		June 11.		June 12.		June 13.		June 14.		June 15.		June 16.	
	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.
Field and staff.....	10	.....	9	.....	10	.....	13	.....	13	.....	.....	.....	.....	.....
Company A.....	3	49	3	49	3	48	3	48	3	48	.....	.....	.....	.....
Company B.....	1	40	1	40	1	36	1	40	1	40	.....	.....	.....	.....
Company C.....	2	35	2	35	2	34	2	35	2	35	.....	.....	.....	.....
Company D.....	.....	.....	.....	.....	3	43	3	43	3	43	3	43	.....	.....
Company E.....	3	48	3	48	3	48	3	48	3	48	.....	.....	.....	.....
Company F.....	1	65	1	65	1	65	1	65	1	65	.....	.....	.....	.....
Company G.....	3	48	3	48	3	49	3	46	3	46	.....	.....	.....	.....
Company H.....	3	48	3	48	3	47	3	48	3	48	.....	.....	.....	.....
Hospital corps.....	.....	8	.....	8	.....	7	.....	7	.....	7	.....	.....	.....	.....
Noncommissioned staff.....	.....	7	.....	7	.....	8	.....	8	.....	8	.....	.....	.....	.....
Band.....	.....	28	.....	28	.....	28	.....	28	.....	28	.....	.....	.....	.....

Schedule of exercises during encampment.

Date.	Regular troops.	National Guard.
Wednesday, June 10....	.....	Arriving and making camp; guard mount; establishing sentries; instructions in cooking and kitchen work.
Thursday, June 11.....	Exhibition drill. Shelter-tent pitching by Sixty-seventh.	Inspection of camp 8 a. m.; guard mount; dress parade; instructions in cooking and kitchen work; retreat; arrival of Company D from Hilo, Hawaii, 9.30 p. m.
Friday, June 12	Exhibition drill by Sixty-sixth and Sixty-seventh Companies artillery, U. S. Army. Advance guard drill. Shelter-tent pitching.	Company drills; inspection of camp; regimental drill; guard mount; drill of battalions by Major McClellan; parade and review; instructions in cooking and kitchen work; retreat.
Saturday, June 13	Formation as part of regiment for review by Major McClellan.	Company drills; inspection of camp; review by Major McClellan, U. S. Army, witnessed by Governor Dole and members of legislature; guard mounting; dress parade; instructions in cooking and kitchen work; retreat.
Sunday, June 14.....	.....	Muster of entire command by Major McClellan, U. S. Army; inspection of camp; instructions in cooking and kitchen work; policing and breaking camp of companies stationed at Honolulu; marching from camp to drill shed; dismissed.
Monday, June 15 .....	.....	Guard mount and drill by Company D; muster of company; instructions in cooking and kitchen work.
Tuesday, June 16.....	.....	Instructions in cooking and kitchen work; Company D breaks camp at 9 a. m., marches to steamer, and embarks for Hilo.

List of calls for National Guard of Hawaii while in camp.

Reveille, first call.....	a. m..	6. 15
Reveille.....	do...	6. 25
Assembly.....	do...	6. 30
Mess call, breakfast.....	do...	6. 45
Sick call.....	do...	7. 15
Fatigue call.....	do...	7. 30
Recall from fatigue.....	do...	11. 30
First sergeant's call.....	do...	11. 45
Mess call, dinner.....	m.....	12. 00
Fatigue call.....	p. m..	1. 00
Recall from fatigue.....	do...	4. 30
Mess call, supper.....	do...	5. 30
Guard mounting, first call.....	do...	6. 05
Assembly.....	do...	6. 15
Retreat, immediately after guard mounting.		
Tattoo.....	do...	9. 00
Call to quarters.....	do...	10. 45
Taps.....	do...	11. 00

REPORT OF MAJOR McCLELLAN ON THE ENCAMPMENT OF THE FIRST REGIMENT
NATIONAL GUARD OF HAWAII.

I have the honor to report that the First Regiment National Guard of Hawaii, Col. J. W. Jones commanding, went into camp in Kapiolani Park, near Camp McKinley, June 10, 1903, and that the last company broke camp on June 16, 1903. The camp was a successful one, and in many respects very satisfactory.

The regiment comprised a full field and staff, hospital corps detachment, an excellent band, and 2 battalions, 4 companies each.

First Lieut. Harry W. Newton, coast artillery, was detailed for duty during the encampment and was engaged in instructing men and officers in guard duty, camp duties, and camp cooking. Several cooks and sergeants were detailed to instruct at the company kitchens and did much good work.

Captain Pierce, artillery corps, acted as instructor at battalion drill, formation of a column en route on road, and formation of advance and rear guard.

First Lieutenant Robinson, artillery corps, acted as instructor in use of shelter tents, forming a camp for one company, and carrying and use of soldiers' equipments, making of blanket roll, etc.

I drilled each battalion of the guard.

There was a parade of the 2 battalions of the guard and 1 battalion of regular troops, a regiment of 12 companies, and a review of same, witnessed by the governor and legislature of Hawaii. Parade and review were excellent.

The health of regular troops was good. A large number of guardsmen came up at sick call for slight ailments. Seven men had severe attacks of dengue fever, 1 man was sent to his home sick, and 3 of the fever patients belonging to the Hilo company I sent to the Queen's Hospital, Honolulu, where they are entitled to treatment, and these will be returned to Hilo when able to travel.

The national guard was regularly mustered by myself, and muster and pay rolls will be forwarded.

REPORT OF ACTING COMMISSARY ON TRANSACTIONS DURING ENCAMPMENT.

On June 10, 1903, we went into camp with 346 men entitled to draw rations as follows: Company A, 46 men; Company B, 35 men; Company C, 34 men; Company E, 42 men; Company F, 65 men; Company G, 36 men; Company H, 46 men; band, noncommissioned staff, and hospital corps, 42 men, as per reports made to this department that morning.

This department drew from the United States quartermaster's department at Honolulu on June 10, 1903, 5 complete rations for each of above man, or total of 1,730 rations.

Each succeeding day the strength of the companies was increased, and on June 12 Company D, with 43 men, was to be supplied with commissary stores. On this date (June 12, 1903) this department drew from the United States quartermaster's department at Honolulu five days' rations for each man in Company D (215) and rations

for the extra men who had joined the various companies since June 10, 1903, amounting to 155 rations; thus making the total number of rations drawn from the United States quartermaster's department at Honolulu during the encampment 2,100, distributed as follows:

Company A (215), 49 men for 5 days; Company B (200), 40 men for 5 days; Company C (175), 35 men for 5 days; Company D (215), 43 men for 5 days; Company E (240), 48 men for 5 days; Company F (325), 65 men for 5 days; Company G (245), 49 men for 5 days; Company H (240), 48 men for 5 days; noncommissioned staff, band, etc. (215), 43 men for 5 days, amounting to 1,835 pounds of beef, 474 pounds of bacon, 1,963 pounds of flour, 350 pounds of hard bread, 151 pounds of beans, 105 pounds of rice, 1,624 pounds of potatoes, 466 pounds of onions, 83 cans of fruit, 164 pounds of coffee, 420 pounds of sugar, 83 pounds of salt, 5 pounds of pepper, 83 pounds of soap, 29½ pounds of candles, and 96 boxes of matches.

These rations were all issued and consumed with the exception of the following, which, remaining on hand when Company D broke camp on June 16, were turned over to Lieutenant Newton for Camp McKinley, viz, 117 pounds of potatoes, 12 candles, 5 cans of fruit, ½ pound of pepper, 15 pounds of sugar, 25 pounds of onions, 33 pounds of bacon, 1 pound of rice, 4 pounds of salt, 10 pounds of beans, 10 pounds of coffee, and 3½ pounds of soap.

We also drew from the United States Quartermaster's Department, Honolulu, five days' supply of wood for 3 noncommissioned staff; Company A, 45 men; Company B, 45 men; Company C, 45 men; Company D, 45 men; Company E, 45 men; Company F, 45 men; Company G, 45 men; Company H, 45 men, and Hospital Corps, 7 men, all of which was issued and consumed.

All of the companies purchased provisions and supplies of different kinds from their own funds. The men and company cooks being uninstructed in camp cooking, on the first day or two used a great deal more of their rations than was necessary, but afterwards, being instructed by sergeants from the Regulars, United States Army, from Camp McKinley, they learned how to make the regular ration more than meet requirements.

REPORT OF THE ORDNANCE OFFICER.

The total value of serviceable ordnance in possession of the National Guard of Hawaii on June 30, 1902, as per inventory and estimate, amounted to \$32,224.35, said property consisting of field pieces (exclusive of Austrian battery and munitions for same), small arms (including officers' equipments, etc.), infantry equipments, ammunition assorted, tools, miscellaneous stores, and horse equipments for officers.

The value of ordnance supplies received during the period, July 1, 1902, to December 31, 1902, was \$1,247.29, consisting of—

25,000 caliber .45 cartridges from Frankford Arsenal	\$587.50
Small arms from Pasqual & Co	187.04
Small arms from Colt's Manufacturing Company	272.57
Oils, polishes, tools, lumber, etc., local firms	200.18

Total	1,247.29
-------------	----------

Total to be accounted for December 31, 1902	33,471.64
---	-----------

The total value of ordnance supplies issued to and expended by and property lost by the First Regiment National Guard of Hawaii during the period from June 30, 1902, to December 31, 1902	709.20
--	--------

Balance to be accounted for January 1, 1903 (see last report)	32,762.44
---	-----------

The total value of ordnance supplies received, including cost of packing, etc., during the period from January 1, 1903, to June 30, 1903	34.61
--	-------

Total to be accounted for June 30, 1903	32,797.05
---	-----------

The total value of ordnance supplies issued to and expended by and property lost by the First Regiment National Guard of Hawaii during the period from January 1, 1903, to June 30, 1903	369.23
--	--------

Balance to be accounted for on July 1, 1903	32,427.82
---	-----------

*Itemized statement of expendables issued and property lost as shown above.***Issued:**

Cartridges, caliber .45, factory, 22,580	\$530. 63
F. G. powder, 336½ pounds	52. 34
Cannon powder, 25 pounds	5. 53
Percussion primers, 2½, 13,960	15. 36
D. S. primers, 111	
Lead bullets, caliber .45, 500 grains, 13,980	76. 19
Cartridges, caliber .38, 300	4. 50
8 c. m. powder charges, 60	
7 c. m. powder charges, 55	
Friction primers, long, 157	
Friction primers, short, 606	
D. S. common shells, 30	132. 30
D. S. time shells, 10	50. 00
Hotchkiss common shells, 48	72. 00
Old service powder charges, 100 pounds	
18 cloth silhouettes, D	
18 cloth silhouettes, E	
18 cloth silhouettes, F	
18 paper silhouettes, D	
18 paper silhouettes, E	
18 paper silhouettes, F	5. 80
Hardware and sundries amounting to	132. 62
Lost at camp:	
Canteens, 2 .....	. 64
Haversack straps, 1 .....	. 52
Total	1,078. 43

RECAPITULATION.

Total ordnance property on hand July 1, 1902	\$32, 224. 35
Total ordnance property received during year	1, 281. 90
To be accounted for	33, 506. 25
Expended and lost during year and to be accounted for	1, 078. 43
Total ordnance property on hand July 1, 1903	32, 427. 82

Disposition of ordnance property on hand.

At drill shed in Honolulu, in custody of Companies A, B, C, E, F, G, H, and Hospital Corps	\$7, 435. 91
In custody of Company D in Hilo	1, 070. 68
In custody of Company I in Wailuku	663. 84
In custody of officers, field, staff, line, retired, and D and I and noncommissioned officers, as per inventory attached	1, 366. 01
In First Regiment, National Guard of Hawaii, armory at Honolulu, as per inventory	21, 891. 38
Total	32, 427. 82

REPORT OF QUARTERMASTER DEPARTMENT.

Property on hand July 1, 1902	\$16, 929. 76
Property received from Territory	1, 982. 82
Property received from the United States	406. 80
	19, 319. 38
In possession of companies at drill shed	\$5, 447. 13
In possession of Companies D and I	1, 336. 61
	6, 773. 74
Remaining in possession of department	12, 545. 64

EDUCATION.

I offer the report of Mr. Alatau T. Atkinson, superintendent of public instruction, almost entire.

REPORT OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION.

It is with much satisfaction that I can report good work in the schools since my last communication, and the prospect of further improvement during the coming year. During the last biennial period the department of education has been much hampered by the lack of funds and the failure of the legislature of 1900-1901 to provide money for school buildings. The department was driven to resort to all kinds of makeshifts in order to carry on the schools, and it was impossible to erect the most necessary of buildings. In spite of these difficulties the cause of education has progressed and the number in school has materially increased.

FINANCIAL.

We commence the new period under better auspices than we did two years ago, and with the floating of the loan the new buildings, of which there is such a crying need, will be erected. The department asked the legislature of 1902-3 for \$280,800 for new buildings, viz, for Oahu, \$153,900; for Hawaii, \$34,800; for Maui, Molokai, and Lanai, \$65,100; and for Kauai, \$27,000. The legislature granted more than was asked for, petitions having come in for schools at certain specified places. There has been granted for Oahu, \$155,400 and a further special sum of \$2,500; for Hawaii, \$41,000 and specific sums additional amounting to \$10,200; for Maui, Molokai, and Lanai, \$85,000; and for Kauai, \$27,000, with a specific appropriation of \$3,500 additional. The total appropriation for buildings, all of which comes from the loan, is \$324,600. If this sum is expended during the next two years the Territory will be wonderfully equipped with accommodations, and the next period should not prove as expensive in this direction. But just as "ships are but boards" according to Shylock, so schoolhouses are but boards, and in our wet climate they rot, even where great care is taken in repairing them, and every legislature will find need for new schoolhouses in some part of the group.

It is well to note how important and how large the administration of the department is, when the funds to be disbursed by it amount during the current biennial period to \$1,188,610.28. Considering the size of the population, the number of isolated places to be provided for, and the expense in keeping up small schools, where the attendance is between 15 and 25 pupils, but which are kept open throughout the whole school year, the showing is a remarkable one.

During the first year of the last biennial period I reported that only \$7,214.20 had been expended upon new buildings out of an appropriation of \$51,500. This had enabled the department only to erect three 1-room schoolhouses and one 2-room schoolhouse.

In the second year of the period the department, on an expenditure of \$25,462.04, erected a school building for the industrial school at Waialea, island of Oahu, at a cost of \$15,000, including the expense of moving the boys of the old reform school from Honolulu to the new quarters, which are 70 miles distant by rail; also one 2-room schoolhouse, one 3-room schoolhouse, one machine shop for the Lahainaluna School, and three teachers' cottages.

ENROLLMENT.

At the close of the fiscal period the total enrollment in all schools of the Territory was 18,415 pupils, as against 17,518 pupils on June 30, 1902. This shows a gain of 897 pupils during the year. Of these, 10,030 were males and 8,385 were females, the disproportion of sexes among the school population not being so great as among the main population. The enrollment of the public schools was 13,793, against 13,189 in 1902, an increase of 604, and the enrollment of the private schools was 4,622, against 4,329 in 1902, an increase of 293.

It may be further interesting to note, before quitting this section of the subject, that the total school enrollment in 1880 was 7,164; in 1890 it was 10,006; in 1900 it was 15,537, and that at the present writing it is 18,415, a very remarkable advance in the space of three years.

There are in all 203 schools in the Territory, of which 144 are public schools, supported by public money, and 59 are private schools, supported by trust funds, rents,

private contributions, and fees. All public schools, from the normal and high schools to the smallest country school, are free, and are open to all classes of the population, regardless of color or race. In the public schools all the heterogeneous elements of our polyglot population meet upon a plane of equality, and the Asiatic, the American, the Malay, and the European sit side by side and play together in the playground in perfect harmony. It is the school that makes the population kin. The school takes the place of that one touch of nature which, Shakespeare says, makes the whole world kin.

The total number of teachers in the Territory in active employment was 633, of whom 183 were males and 450 females. Of these, 386 were employed in the public schools and 247 were teaching in private schools. This gives an average of 35 pupils to each public school teacher and 18 pupils to every teacher in the private schools. The following table gives the statistics upon which the above statements are based:

	Number of schools.	Teachers.			Pupils.		
		Male.	Female.	Total.	Male.	Female.	Total.
Public schools.....	144	101	285	386	7,590	6,203	13,793
Private schools.....	59	82	165	247	2,440	2,182	4,622
Total.....	203	183	450	633	10,030	8,385	18,415

NATIONALITIES OF PUPILS.

The next table which I lay before you is the table of nationalities. We still continue to divide our school population according to the nationality of the parents for purposes of race statistics, but it must be remembered that, with only a few exceptions, chiefly among the Asiatics, the pupils are by right of birth American citizens. It may be said that at the present time the schools of the Territory are educating over 18,000 pupils who are by birth American citizens, derived from the various races enumerated.

It is in this fact that our justification in educating Chinese and Japanese children lies. They are born here. In course of time they will claim their rights as voters, and that right can not be denied them. It is necessary, therefore, that they should be educated and trained by American methods. Were they not to become citizens and voters I should advise saving the expense of educating them, but as they will be it is a prime necessity to educate them, so that they will vote intelligently. It is the school that makes citizens. During the last year nearly 600,000 Italians, Asiatics, Hungarians, and Russians came to the mainland as immigrants. In a generation the younger portion of these immigrants will have become thoroughly assimilated. They will no longer be Italians, Hungarians, or Russians; they will be Americans, and it is this process we must follow out here—we must make Americans.

The total number of Hawaiians of unmixed blood in school has remained practically stationary. In 1902 there were 4,903, and the present report shows 4,893. This is a decrease of 10 in a year, which means nothing. On the other hand, there has been a considerable increase in the number of part Hawaiians—that is, children whose parentage is partly Hawaiian and partly some other nationality. Last year these pupils were reported at 2,869. This year they number 3,018, and it is evidently only a question of time when the part Hawaiians will equal and then exceed those Hawaiians of unmixed blood. In 1880, when this classification was first made, there were only 955 part Hawaiians in school, in 1890 there were 1,573, in 1900 there were 2,631. There has thus been a steady annual increase. Adding Hawaiians of unmixed blood and part Hawaiians together, we have 7,911 pupils in our schools of Hawaiian parentage of one kind or another.

The Portuguese stand next in order of importance as to the number in our schools. On June 30, 1902, there were 3,809 pupils of this nationality. June 30, 1903, they numbered 4,243—over 400 more in the space of one year. Another year will, in all probability, see the number of Portuguese children in school equal the number of Hawaiian children. In 1880 there were 55 Portuguese children in school, in 1890 there were 1,813, in 1900, 3,809. The increase from decade to decade has been enormous. The statement that numbers of Portuguese are leaving the Territory is certainly not borne out by the school statistics. If they are leaving the Territory, there are enough remaining to swell the census returns.

Chinese appeared in our statistics of 1880 as only numbering 85. Ten years later, in 1890, there were only 262 in the schools; in 1900 there were 1,289; in 1902, June 30, there were 1,395, and at the present writing Chinese in school number 1,554, of whom 1,106 are in the public schools and 448 are in private institutions.

The increase of Japanese has been during a much shorter space of time. This nationality first appears in the school statistics in 1888, when 54 pupils were reported. In 1894, there were only 113, but from that time there has been a steady increase. In 1898 there were 737; in 1900 the thousand mark was overtopped and 1,352 were reported. Last year, on June 30, there were 1,993 Japanese in school, and this year 2,521 was the number given at the same date.

Americans and Europeans other than Portuguese number 1,648. Adding this to the Portuguese pupils, we get a white school population of 5,891—larger than the Hawaiian school population, but not so large as the Hawaiians and part Hawaiians combined. On the other hand, the white school population is larger than the two Asiatic populations combined. The Porto Ricans, though Americans, and of very much mixed blood, it is interesting to chronicle apart. There were 538 of them in school, June 30, 1903.

Nationality of pupils attending school in the Territory of Hawaii.

Nationality.	Public schools.	Private schools.	Total.
Hawaiian	4, 090	803	4, 898
Part Hawaiian	2, 087	931	3, 018
American	493	306	799
British	148	69	217
German	138	157	295
Portuguese	2, 879	1, 364	4, 243
Scandinavian	156	38	194
Japanese	2, 140	381	2, 521
Chinese	1, 106	448	1, 554
Porto Rican	454	84	538
Other foreigners	102	41	143
Total	13, 793	4, 622	18, 415

TERRITORIAL TEACHERS.

The year ending June 30, 1903, showed 633 teachers to be engaged in education in the Territory, against 609 reported in June 30, 1902. Of these 386 were employed in the public schools and 229 in the private schools. Just as it is our custom to divide our pupils into nationalities according to their parentage, so it is our custom to divide our teachers upon similar lines. The bulk of the teaching force both in public and private schools is of American parentage, the figures being 192 in public schools and 135 in private schools, or 327 altogether. The public schools employ 115 teachers of Hawaiian blood, while the private schools employ but 35. The public schools employ no Chinese or Japanese teachers; the private schools employ 13 of the former and 9 of the latter. Portuguese appear as 21 in the public schools and 11 in the private schools. The number of Portuguese teachers is increasing. Of course these are really American; not Portuguese. Their education has been gained in American schools; they speak, read, and think in English, which is their mother tongue, and they are all American citizens.

Comparative nationality of teachers.

Nationality.	Public schools.	Private schools.	Total.
Hawaiian	56	22	78
Part Hawaiian	59	13	72
American	192	135	327
British	41	16	57
German	5	8	13
Portuguese	21	11	32
Scandinavian	8	7	15
Japanese .....	.....	9	9
Chinese .....	.....	13	13
Other foreigners	4	13	17
Total	386	247	633

It is well to call attention to the fact that we have a regular system of certificates which are gained by examination, a regular set of certified normal teachers, a system of life certificates, and a schedule rate upon which salaries are paid. In this we are on a par with the advanced States in the Union. The following are the rules regulating teachers' examinations and certificates.

TEACHERS' CERTIFICATES.

Examinations of candidates for teachers' certificates will be held at such times and places and shall embrace such subjects as the department may from time to time prescribe. As a result of such examinations certificates will be issued as follows:

Primary grade: For an average of 85 per cent or over, a first-class certificate, good for three years; for an average of 75 per cent or over, a second-class certificate, good for two years; for an average of 65 per cent or over, a third-class certificate, good for one year.

First-class certificates are subject to renewal for the same period for which they were originally issued at the pleasure of the department.

Teachers who have rendered ten years of satisfactory service in the public schools of the Territory under a first-class primary grade certificate with an average of 90 per cent or over will be entitled to first-class primary life certificate.

Grammar grade: For an average of 85 per cent or over, a first-class certificate, good for five years; for an average of 80 per cent or over, a second-class certificate, good for four years; for an average of 75 per cent or over, a third-class certificate, good for three years.

Teachers who have rendered five years of satisfactory service in the public schools of the Territory under a grammar grade certificate with an average of 90 per cent or over, will be entitled to grammar grade life diplomas.

Honorary: To teachers who have rendered not less than fifteen years' satisfactory service in the public schools of the Territory may be granted by the department in special cases, without examination, honorary life certificates of the primary grade.

The following additional rule concerning certificates was adopted February 25, 1903: Diplomas and certificates of other States and Territories will be received as equivalent to Hawaiian certificates, as follows:

University A. B. degree	Grammar-grade certificate.
Normal diplomas	Grammar-grade certificate.
State or Territorial grammar-grade certificates	Grammar-grade certificate.
County certificates, first class	First-class primary.
State life certificates	Life diplomas.

When granted, time allowance will be according to regular schedule. Hawaiian normal-school certificates are equivalent to first-class certificates with one year of service allowed.

The rules adopted for salaries are as follows:

SCHEDULE OF TEACHERS' SALARIES.

1. This schedule is not to be considered in the nature of a contract between the department and the teachers, but it may be altered or suspended at any time if it be deemed necessary.

2. Schools will be classified and salaries fixed at the beginning of each school year. Satisfactory service only entitles a teacher to raise of salary.

3. Teachers obtaining normal certificates will be allowed for one year's experience. Half the time taught in the United States public schools outside of Hawaii will be allowed for.

4. A teacher promoted to a higher position will begin at the lowest salary of that position, and if his service is satisfactory for one year, all previous experience may be allowed for.

5. Competent teachers in undesirable locations, or where living is unusually expensive, may be paid above the schedule.

6. Teachers of schools with an enrollment under 40 will be classed as assistants—that is, in the matter of pay.

7. The Royal, Kaiulani, Kaahumanu, Honolulu Normal, and Hilo Union schools are hereby recognized as of equal class, the principals of which will receive salaries of \$2,400 a year, without regard to length of service.

8. Salaries in the high school proper, as distinguished from the grammar department, are regarded as outside of any schedule.

Salaries of principals, elementary schools.

Enrollment.	First year.	Second year.	Third year.	Fourth year.	Fifth year.	Sixth year.	Eleventh year.	Sixteenth year.	Twenty-first year.
196-300.....	\$1,000	\$1,200					\$1,500		
166-195.....	1,000		\$1,200					\$1,500	
136-165.....	1,000			\$1,200					\$1,500
106-135.....	900	1,000			\$1,200				1,500
76-105.....	720	840	900			\$1,000	1,200		
46-75.....	660		720			840	900		

Salaries of assistants, elementary schools.

	First-class certificate.	Second-class certificate.	Third-class certificate.
First year.....	\$600	\$480	\$360
Third year.....	660	540	360
Sixth year.....	720	600	360
Ninth year.....	780	660	360
Twelfth year.....	840	720	360
Fifteenth year.....	900	720	360

SPECIAL.

Grammar department, high school.

First year.....	\$720
Second year.....	780
Third year.....	840
Fourth year.....	900
Fifth year.....	960
Sixth year.....	1,020
Seventh year.....	1,080
Tenth year.....	1,200

Normal school and practice school.

First year.....	\$800
Second year.....	960
Third year.....	1,020
Fourth year.....	1,080
Fifth year.....	1,200

The question whether teachers' salaries should be paid in ten monthly payments or should be in twelve monthly payments, as now, is one which it is difficult to decide. As a matter of bookkeeping the ten monthly payments would be an advantage to both the auditor's department and the department of education. As to the teachers, it would suit some very well and would not suit others at all. Those of our teachers who have made their homes and who will spend the greater part of their lives here prefer the present system, which assures them of a regular salary every month of the year. Those teachers who are from outside the Territory, who may be regarded as transient, naturally prefer the system of ten monthly payments. Of course at the present time the schools of the Territory are kept open throughout the year. An entire change of the school system would lead to an entire change in the method of payment, and it may be better to retain our present method of payment until the entire change of system takes place.

Of the teachers employed 37 have Hawaiian life certificates, 82 have normal certificates or diplomas, 70 have Hawaiian first-class primary certificates, 24 have Hawaiian second-class certificates, 13 have Hawaiian third-class certificates, 93 have certificates or diplomas from universities, normal schools, or States, and 65 have no certificates. The latter are mostly Hawaiians who are teaching on probation.

DISTRIBUTION OF SCHOOLS.

The largest number of public schools is on the island of Hawaii, of which 56 are public schools, taught by 132 teachers, and 11 are private schools, the total enrollment of the two classes of schools being 5,413. On Oahu there are 34 government

schools, in which are engaged 136 teachers, and 31 private schools, the total enrollment being 7,854. The large number of schools on Hawaii is explained by the number of isolated villages where teachers are in charge of small numbers of children. On Oahu, on the other hand, the schools are concentrated and large and greater economy in the use of teachers can be obtained. Thus 132 teachers are required for 4,556 pupils on the island of Hawaii, while 5,031 children require 136 teachers on the island of Oahu, and this includes the high school and the normal school, together with special teachers in drawing, music, and physical culture.

The chief seat of the private schools is Honolulu, where the headquarters of all the denominational schools are situated, and also where there is opportunity for small advanced schools to be carried on at a profit. The Roman Catholics, the Episcopalians, and the German Lutherans maintain schools, and there are also endowed schools, like the Kamehameha schools for youths of both sexes, which were provided for by the late Chieftess Bernice Pauahi Bishop, and a preparatory annex fitted up and endowed by the Hon. C. R. Bishop, husband of the chieftess. There is Oahu College, also endowed in part by the early chiefs and in part by donations and bequests from private individuals. The private schools outside of Honolulu are almost without exception denominational schools.

Distribution of schools, pupils, and teachers upon the Hawaiian Islands.

PUBLIC SCHOOLS.

Islands.	Number of schools.	Teachers.			Pupils.		
		Male.	Female.	Total.	Male.	Female.	Total.
Hawaii	56	41	91	132	2,495	2,061	4,556
Maui and Lanai	30	26	40	66	1,177	1,044	2,221
Molokai	9	4	5	9	142	103	245
Oahu	34	18	118	136	2,799	2,232	5,031
Kauai and Niihau	15	12	31	43	977	763	1,740
Total	144	101	285	386	7,590	6,203	13,793

PRIVATE SCHOOLS.

Hawaii	11	13	23	36	434	423	857
Maui and Lanai	12	7	30	37	355	424	779
Molokai	31	56	108	164	1,569	1,254	2,823
Kauai and Niihau	5	6	4	10	82	81	163
Total	59	82	165	247	2,440	2,182	4,622

AGES OF PUPILS.

The ages of the pupils in school are given in the following table. Attendance at some school is compulsory from the age of 6 to 15. Between those ages we have at the present writing 16,218 pupils in school, as against 15,525 a year ago. We have also 1,081 children under 6 years of age who are attending for the most part kindergarten schools supported by voluntary contributions. It is intended to make a preliminary experiment of kindergarten work in the public schools, and when the new normal school is erected a building will be provided for that purpose. The attendance at such schools is entirely voluntary, and would be so if kindergarten attachments were made to the public schools. The attendance above 15 years of age is also entirely voluntary. The public high school, the normal school, and Lahainaluna provide for those who ask for a more extended education. These divide up some 300 pupils, while the other 214 are scattered among the various schools of the Territory. The private institutions have 582 pupils above school age. These are found in Oahu College, St. Louis College, Kamehameha schools, and similar establishments.

Ages of all pupils in all schools of the Territory of Hawaii.

PUBLIC SCHOOLS.

	Under 6 years.	Six to 8 years.	Eight to 15 years.	Above 15 years.
Boys	169	2, 278	4, 853	290
Girls	108	1, 857	3, 996	242
Total	277	4, 135	8, 849	532

PRIVATE SCHOOLS.

	Under 6 years.	Six to 15 years.	Above 15 years.
Boys	390	1, 674	377
Girls	414	1, 560	207
Total	804	3, 234	584

TOTALS IN PUBLIC AND PRIVATE SCHOOLS.

	Under 6 years.	Six to 15 years.	Above 15 years.
Boys	559	8, 805	667
Girls	522	7, 413	449
Total	1, 081	16, 218	1, 116

The last table which is submitted to you is that dealing with manual work. This branch of education, which is regarded by the department of education as of the highest importance, is being pushed forward with diligence by the inspectors and most of the teachers. There are, however, those who are apathetic in this direction, and who have no idea of anything but old-fashioned mental training, who are incapable themselves of instructing in manual training and who are a dead weight for the more progressive to carry. Such teachers, one-sided men and women, have served the Territory for many years, and it seems hard to dismiss them from their positions. What they are capable of doing they do well, but they are incapable of meeting present educational demands, and the time will come when many of them will have to be replaced. Every teacher in our primary schools should be able to give manual instruction and in course of a few years every teacher will have that facility.

The number of pupils in sewing has been increased from 5,889 to 6,589 during the year. In agriculture we have 5,819 instead of 5,010. Those receiving instruction in lauhala and bamboo work have increased from 565 to 737. Drawing is now given to 10,210, instead of 8,164, as was reported last year. This all shows an advance, and there is every prospect of further advance. As our teachers, trained in our normal school with the direct object of giving instruction to our peculiar population, begin to fill positions throughout the Territory, we shall find manual training taking its proper standing in our school curriculum, and we shall be approaching more and more to modern ideals. Every teacher who passes through our normal school course, whether male or female, has a knowledge of the use of tools, has a knowledge of agriculture and practical gardening, and can sew, draw, and give instruction in tonic sol fa singing.

Number of pupils in sewing, agriculture, manual work, drawing, and tonic sol fa in public schools.

Islands.	Sewing.	Knife work.	Agriculture.	Lauhala and bamboo work.	Mat weaving.	Other manual training.	Drawing.	Singing tonic sol fa.
Hawaii	1, 725	40	1, 561	282	54	331	2, 819	1, 991
Maui and Lanai	930	43	547	149	36	297	1, 496	1, 375
Molokai	72	.....	119	40	18	23	115	181
Oahu	3, 058	102	2, 869	223	183	1, 383	4, 604	4, 060
Kauai and Niihau	804	30	723	43	.....	173	1, 176	1, 112
Total	6, 589	215	5, 819	737	291	2, 207	10, 210	8, 719

INDUSTRIAL SCHOOLS.

During the last six months the department has been able to carry out its plans with regard to industrial schools and of a reformatory character. In this the superintendent has had a keen personal interest for fully twenty years, and it is a pleasure to see fruition of these hopes. The movement in favor of two industrial schools of a reformatory character, one for boys and one for girls, has been steadily kept before the public both by newspaper articles and by reports to the legislature, and in spite of many rebuffs and some failures the two establishments have at length been placed, or nearly placed, upon a satisfactory footing.

HISTORICAL.

The first notice of a reform school is contained in the report of M. Kekuanoa, president of the board of education, in 1866. The legislature in March, 1865, voted an appropriation of \$6,000 for an industrial and reform school. A building costing \$2,200 was erected upon the present site of the girls' industrial school, and a Mr. and Mrs. Hyde, school teachers, were put in charge. After some early vicissitudes the school in 1866 numbered 15 boys and 2 girls.

The report of 1870 shows that the land which had been originally leased was purchased by the board. Miss Mary Parker was in charge of the establishment. There were 49 boys in the school, of whom 46 had been received upon commitment, and 3 were being paid for by parents or guardians. At that time, five years from its commencement, 14 boys had been apprenticed, which at the time the law allowed. It was a questionable system, which deservedly fell into disuse later. The girls' section had been suspended in 1868. In 1872 Miss Parker was still in charge, and had associated with her Mr. and Mrs. Kauhane, the school having grown to 70 pupils. The report of 1874 gives George H. Dole as principal of the school. The numbers had gone down to 56. The instruction was conducted chiefly in Hawaiian. A suggestion of a girls' annex was urged, but there was at the time no prospect of its being instituted. In 1875 Mr. Dole resigned his position and Walter Hill was appointed. Mr. Hill had been principal of Lahaina school. On Mr. Hill's taking charge the number of boys in the school was 47. Under Mr. Hill's administration English was introduced as the basis of study, and some excellent work was done in an agricultural line. Mr. Hill remained in charge till March 15, 1886, when Captain Jackson was put in charge. During the ten years of Mr. Hill's incumbency some excellent work had been done, and there had been real success with the reformation of the boys, many of whom had gone forth into life and become reputable citizens.

With the close of Mr. Hill's administration the reform school fell upon evil times. Captain Jackson was put in charge of the institution with the idea of making it a sort of naval school. The agricultural and mechanical side of the education was neglected and the taro lands, the banana plantation, and the vegetable gardens were sold. All the elder boys were drafted on board of the *Kaimiloa*, a vessel which was fitted out by the Hawaiian government as a man-of-war, and the institution was completely disorganized. From this disorganization the school never recovered till quite recently. Whoever had charge of it was hampered by having no land to cultivate and not having adequate means for carrying on industrial work. The school dwindled down to between 30 and 40 pupils, and the justices seldom sent young boys to the institution. This condition of affairs was by no means the fault of the gentleman in charge, W. G. Needham, but was due entirely to the manner in which the institution had been crippled. Mr. Needham kept the place spotlessly neat, but it was impossible to make a success under the conditions. In 1901 Mr. Needham resigned and the present incumbent, T. H. Gibson, took charge.

The necessity for an enlarged agricultural field for boys who required to be under restraint and were in need of surroundings which would prevent their becoming criminals had been felt for a long time. The necessity for a well-equipped establishment for the care of errant girls had been talked of for fully twenty years. That there had been necessity for this had been plain from the numerous reports on the subject. Thoughtful police magistrates like the late judge Wilcox had urged the importance of such an institution, but it was plain that the original plan of the seventies of having boys and girls of this character in the same school lot was not feasible.

In 1898 Hon. H. E. Cooper, then president of the board of education, proposed a plan by which the old reform school would be removed to Kauai and was in negotiation for a site at Malumalu, near Lihue, where the late Dr. Jared Smith and his sister, Miss Juliette Smith, had established an industrial school, which was sup-

ported by contributions from private individuals. The necessary funds for the purchase of the estate were not voted, probably through inadvertence, and the scheme failed.

In 1899 there was a proposition made to establish the school at Waialea, upon government land, the lease of which was soon to expire. But this proposition hung fire until 1901, when the lease fell in and the land was deeded over to the department of education. Having acquired the land, the department asked for an appropriation from the legislature for erecting buildings and removing the boys, and also asked for funds to convert the old buildings into suitable quarters for an industrial school for girls. The amounts voted were \$15,000 for the first item and \$10,000 for the second. The first was very inadequate, the second was almost too liberal.

Owing to financial difficulties these appropriations did not become available until the end of the biennial period, but by using some energy the work was completed before the appropriations ran out. The building and a moderate water supply at Waialea was ready by May of this year, and as soon as the boys were moved down operations were commenced upon the girls' industrial school, and all the building, repairing, and painting required was completed or nearly completed by June 30. Since then the various fittings have been put in place and the institution is now ready for occupancy.

The Waialea estate, where the boys' industrial school is situated, contains some 700 acres of land on the northern side of the island, about 5 miles from Kahuku and 8 miles from Waialua. It has a coast line of over a mile, and extends back to the mountain ridge. About half a mile from the sea a series of bluffs extend, and the low land between them has been chosen as the site for the school buildings. Above the beach is a fine tract of taro land, some of which is owned in Kuleanas, and a considerable quantity belongs to the estate. There is also a large pond supplied by never-failing springs. The situation of the school will enable the department to carry on agriculture, dairy farming, and fishing, besides giving instruction in carpentering, blacksmithing, the manufacture of poi, and, of course, general school work.

ACCOUNT OF WAIALEA.

On the 13th of May last the boys of the reformatory school in Honolulu—68 in number—were moved down to the new buildings at Waialea, the institution to be hereafter known as the Waialea Industrial School.

Since that date the work accomplished in the different departments has been as follows:

Agricultural.—Four taro patches have been made and planted; a fifth is about ready to plant. A vegetable garden has been made and planted with onions, tomatoes, corn, beans, lettuce, radish, beets, and carrots. This required a great deal of work. For the taro patches the ground had to be cleared of rushes and grass, kuaunas or banks had to be built around each patch, and for this purpose stones and soil had to be transported some distance with wheelbarrows. Now that there are horses and carts the work will progress more rapidly and is less laborious.

There have also been planted 220 banana plants and about 500 trees for wind-breaks and firewood. The trees planted are eucalyptus, *gravillea robusta*, ironwood, kamani, poinciana, tamarind, alligator pear, and mango. Before planting many fruit trees it is necessary to have wind-breaks. A terrace was built, extending 30 feet around the main building, and planted with manienie grass. A considerable area has been cleared of lantana and stones.

Mechanical work by the boys.—For the dining hall 8 tables and 24 benches have been made, 3 safes for the pantry, a table and cupboard for the kitchen, a table and cupboard for the hospital, and 42 desks have been set up and placed in the schoolroom. The following buildings have been erected by the boys: A clothes and store room, 18 by 48 feet, a closet with 10 compartments, 5 by 30 feet, with urinals and latticed screen, a carpenter shop, 20 by 40 feet, and a poi house of corrugated iron with cemented floor, 13 by 15 feet.

A force pump has been set up and connected with the tanks by 1½-inch pipe—580 feet. Pipes have been laid around the terrace. The framework supporting the tanks has been inclosed, the floor cemented, and 14 shower baths put up.

Daily programme.—5 a. m., reveille; 5 to 7 a. m., work; 7 to 7.30 a. m., breakfast; 7.30 to 9.30 a. m., E class schoolroom, A, B, C, D classes work; 9.30 to 11 a. m., C and D classes schoolroom, A, B, and E classes work; 11 to 12 a. m., A and B classes schoolroom, C, D, and E classes work; 12 to 1 p. m., dinner; 1 to 4 p. m., work; 4 to 5 p. m., bathing and play; 5 to 5.30 p. m., supper; 5.30 to 6 p. m., evening work; 6 to 7.30 p. m., study hour.

Saturday is washing, mending, and general cleaning day. It is half holiday.

The boys change work every month. Four boys have charge of the dining hall, two in the kitchen, two in the dormitories, one in the schoolroom, and one in the clothes room.

As to the health of the boys, there has been nothing serious enough to require medical attendance.

The conduct of the boys, on the whole, has improved since the school was moved.

Appended are a few tables showing the nationality of the boys, the offenses for which they have been committed, and their terms of sentence.

The total number on the muster roll at present is 78.

In school	73
In hospital	1
In Oahu jail	3
Escaped	1
Total	78

Nationality:

Hawaiian	37
Part Hawaiian	7
American (colored, 1)	2
Portuguese	15
Chinese	2
Porto Rican	15
Total	78

List of offenses and number committed for each.

Truancy	18
Vagrancy and homeless	11
Disobedience to parents	15
Common nuisance	1
Trespass	3
Assault and battery	2
Larceny	25
Housebreaking	1
Burglary	2
Total	78

Nationality and offenses.

Offense.	Hawaiian.	Part Hawaiian.	American.	Portuguese.	Chinese.	Porto Rican.	Total.
Truancy	8	3		3		4	18
Vagrancy	3			2	1	5	11
Disobedience to parents	11	1		3			15
Common nuisance	1						1
Trespass	2				1		3
Assault and battery	1					1	2
Larceny	8	3	2	7		5	25
Housebreaking	1						1
Burglary	2						2
Total	37	7	2	15	2	15	78

Offenses and length of terms.

Offense.	One year.	Two years.	Three years.	Four years.	Five years.	Six years.	Seven years.	Eight years.	During minority.	Total.
Truancy	3	5	5		1	1		1	2	18
Vagrancy		2	3		1			3	2	11
Disobedience	1	1	8		2				3	15
Common nuisance									1	1
Trespass			3							3
Assault and battery	1	1								2
Larceny	5	3	2	2	1		1	1	10	25
Housebreaking									1	1
Burglary									2	2
Total	10	12	21	2	5	1	1	5	21	78

It will be seen by comparing these tables with last report that larceny has increased from 24 to 32 per cent. The last table shows that there is not much uniformity among committing magistrates with regard to the terms of sentence imposed for the different offenses. Every boy committed to this school should receive the maximum sentence and let the period of his residence here depend upon his conduct. This is the idea of the district magistrate of Honolulu, and the boys sentenced from this court hereafter will be sent here during their minority, their period of detention here to be determined by their fitness for release.

THE GIRLS' INDUSTRIAL SCHOOL.

It is the purpose of the department to make the Girls' Industrial School a place where a thorough training in housework will be acquired. The girls will be taught to cook, understand house cleaning, washing, ironing, sewing, and lace making. There is enough land to employ them in horticulture. Habits of cleanliness, modesty, and self-confidence will be instilled. By this means it is hoped that a class of girls who might otherwise grow up to be vicious and spread moral corruption in many directions may be saved from themselves, and prevented from carrying further ill into the body politic. That there will be many failures the department is prepared to acknowledge, but that much good will accrue it firmly believes. Of course we are just at the inception of this project of an industrial school of a reformatory character for girls. That there should have been such an institution years ago is shown by the constant reference to the matter in the reports, and the many references to it in the public press and by public men. Everything in the power of the department has been done to make the institution efficient, and it will remain for time to tell whether the effort that is being made will be a success or not. That it will eventually be a success there is no doubt, but no one ought to boast himself before putting off his armor.

CONCLUSION.

It is not necessary for this report to enter into the details of the many institutions which are within the jurisdiction of the department of education. There is ever an effort being made to improve, not only the public schools proper, but in every portion of the educational, industrial, and reformatory work which in this Territory appertains to the department of education to supervise, direct, and bring to fruition. The department has to its credit the fact that Ellis Lando, a pupil of the high school, passed his examination for Annapolis and is now enrolled as a naval cadet in that institution. Six pupils of our high school took the university entrance examinations and five passed brilliantly. In a large number of the educational institutions of the mainland there are representatives from Hawaii, and it is with pride that this Territory can say that its young men and women show aptitude, both mentally and physically, and seldom, if ever, sully the escutcheon of the country of their birth.

Financial statement, year ending June 30, 1903.

A recapitulation of the appropriations, with disbursements and balances, to June 30, 1902, gave the following result:

	Appropriated.	Disbursed to June 30, 1902.	Balance on hand July 1, 1902.
Salaries and pay rolls	\$652,862.50	\$317,429.93	\$335,432.57
Current expenses.....	202,525.00	60,123.66	142,401.34
Total	855,387.50	377,553.59	477,833.91

Recapitulation for the year ending June 30, 1903.

	Balance on hand July 1, 1902.	Disbursed.	Unexpended balance July 1, 1903.
Salaries and pay rolls	\$335,432.57	\$328,387.23	\$7,045.34
Current expenses.....	42,585.69	36,746.14	5,839.55
New buildings	99,815.65	25,380.81	74,434.84
Total	477,833.91	390,514.18	87,319.73

In addition to the above there were certain appropriations made by the legislature of 1903 under the head of "Emergency." The following are the appropriations of this kind made for this department, with the expenditure under each, and the balance remaining June 30, 1903.

	Appropriated.	Disbursed.	Balance remaining July 1, 1903.
Stationery and incidentals	\$1,500.00	\$1,488.51	\$11.49
General expenses industrial school	2,400.00	2,389.86	10.14
Kindergarten	1,800.00		1,800.00
Schoolhouse, Haiku	1,000.00	939.08	60.92
Total	6,700.00	4,817.45	1,882.55

HEALTH.

PURE FOOD, DRINK, AND MEDICINE.

The legislature at its regular session this year passed an act to provide against the adulteration of foods, drinks, and drugs, which was approved April 28. This act repeals the old pure-food law, and although it is similar to it in many respects several important changes have been made. Among the most important of these is the prohibition of any preservative in milk and the establishment of a standard for milk. This is the same that has been used by the food commissioner and analyst, Mr. Edmund C. Shorey, for the past four years—i. e., total solids, 11.5 per cent, and butter fat, 2.5 per cent.

The inspection of milk offered for sale in Honolulu has been vigorously carried on, with the following results:

	Standard or above.	Below standard.
From milk wagons	943	82
From restaurants	16	9
On private complaints	13	7
From dairies	6	

During the period 510 tins of canned goods were condemned as unfit for food and destroyed.

The only prosecutions during this period were one for the sale of cocaine without a poison label (the defendant was convicted and fined \$250) and one for adulterated milk, in which the defendant was convicted in the lower court but was acquitted on appeal.

The new law will facilitate prosecutions for selling adulterated milk.

SANITARY INSPECTION OF HONOLULU.

Major and minor nuisances ordered abated	26,975
Major and minor nuisances abated	24,389
Examinations for restaurant licenses	87
Total number of inspections	136,491

SANITARY INSPECTION OF HILO.

Major and minor nuisances ordered abated	814
Major and minor nuisances abated	770
Total number of inspections	4,417

INSANE ASYLUM.

This institution is located in the northern suburb of Honolulu. The buildings are old and not fireproof. It is the intention of the government to construct a new and fireproof building in some location not yet selected, but outside of the limits of Honolulu, for which there is an appropriation of loan funds.

	Males.	Females.	Total.
Number of patients July 1, 1902.....	121	34	155
Number of patients admitted in the year ending June 30, 1903.....	50	21	71
Number discharged.....	29	6	35
Number died.....	14	1	15
Number June 30, 1903.....	128	38	166

Nationality of patients January 1, 1903.

	Male.	Female.	Total.		Male.	Female.	Total.
Hawaiian.....	27	17	44	British.....	1	1	2
Chinese.....	37	1	38	Norwegian.....	2		2
Portuguese.....	12	9	21	Polish.....	1		1
Japanese.....	15	1	16	East Indian.....	1		1
German.....	6	1	7	West Indian.....	1		1
American.....	5		5	Filipino.....	1		1
Porto Rican.....	5		5	Central American.....	1		1
Gilbert Islanders.....	2	1	3				
South Sea Islanders.....	2		2	Total.....	119	31	150

LEPROSY.

A supply of good water is furnished the settlement at Kalawao by water pipes. The government conducts a considerable farm at the settlement, including a dairy, by which taro, milk, pork, etc., are produced for the consumption of the inmates. It is the intention to further develop this enterprise and to add the production of beef to the present products of the farm.

Number of patients at the settlement—

June 30, 1902.....	915
June 30, 1903.....	888

Nationality of latter number.

	Males.	Females.	Total.		Males.	Females.	Total.
Hawaiian.....	459	338	797	Japanese.....	5		5
American.....	7	1	8	Porto Rican.....	3		3
British.....	3		3	Chinese.....	40	8	48
German.....	4	2	6	Filipino.....	1		1
French Canadian.....	1		1	Tahitian.....	1		1
Danish.....	1		1	South Sea Islanders.....	3		3
Norwegian.....		1	1				
Swedish.....	1		1	Total.....	541	347	888
Portuguese.....	12	2	14				

Out of 129 persons inspected on suspicion of leprosy during the year to June 30, 1903, 5 were discharged as free from the disease and 124 were found to be lepers. The nationality of the whole number is as follows:

Hawaiians.....	95	Japanese.....	1
Part Hawaiians.....	9	Swedish.....	1
Chinese.....	11	Scotch.....	1
American.....	4	Italian.....	1
Portuguese.....	3		
Porto Rican.....	2	Total.....	129
German.....	1		

Sex.

Males.....	84
Females.....	45
Total.....	129

Ages.

Under 10 years.....	9	From 50 to 60 years.....	8
From 10 to 20 years.....	39	From 60 to 70 years.....	9
From 20 to 30 years.....	31	Over 70 years.....	1
From 30 to 40 years.....	19		
From 40 to 50 years.....	13	Total.....	129

VITAL STATISTICS.

MARRIAGES.

Honolulu—	
Year ending June 30, 1902.....	429
Year ending June 30, 1903.....	376
Territory, not including Honolulu—	
Year ending June 30, 1902.....	885
Year ending June 30, 1903.....	620
Territory, including Honolulu—	
Year ending June 30, 1902.....	1,314
Year ending June 30, 1903.....	996

BIRTHS.

Honolulu—	
Year ending June 30, 1902.....	685
Year ending June 30, 1903.....	609
Territory, not including Honolulu—	
Year ending June 30, 1902.....	1,661
Year ending June 30, 1903.....	1,777
Territory, including Honolulu—	
Year ending June 30, 1902.....	2,346
Year ending June 30, 1903.....	2,386

DEATHS.

Honolulu, year ending June 30, 1902:	
Males.....	672
Females.....	334
	1,006
Honolulu, year ending June 30, 1903:	
Males.....	591
Females.....	355
	946
Territory, not including Honolulu, year ending June 30, 1902:	
Males.....	1,099
Females.....	642
	1,741
Territory, not including Honolulu, year ending June 30, 1903:	
Males.....	1,026
Females.....	609
	1,635
Territory, including Honolulu, year ending June 30, 1902:	
Males.....	1,771
Females.....	976
	2,747
Territory, including Honolulu, year ending June 30, 1903:	
Males.....	1,617
Females.....	964
	2,581
Annual death rate per 1,000 of population, Honolulu—	
Year ending June 30, 1902.....	25.59
Year ending June 30, 1903.....	24.06

Annual death rate per 1,000 of population, Territory, not including Honolulu—

Year ending June 30, 1902	11.3
Year ending June 30, 1903	10.6
Annual death rate per 1,000 of population, whole Territory—	
Year ending June 30, 1902	17.8
Year ending June 30, 1903	16.78

Causes of death in Honolulu for year ending June 30, 1903.

Febrile	65	Digestive	135
Diarrheal	66	Absorbent and glandular	1
Venereal	9	Urinary	42
Septic	2	Reproductive	16
Diathetic	32	Osseous and integumentary	11
Constitutional	169	Accident and violence	32
Developmental	55	Suicide	6
Nervous	129		
Circulatory	50	Total	946
Respiratory	126		

Nationality of same.

Hawaiian	414	British	18
Japanese	184	Other nationalities	36
Chinese	132		
Portuguese	97	Total	946
American	65		

FISHERIES.

The only limitations to fishing in Hawaiian public waters by citizens is the regulation against the use of explosives in taking fish and the provision of law making it unlawful to take the young of mullet and awa under 4 inches in length.

The public waters of the Territory are free to citizens of the United States; but the majority of fishermen in such waters are aliens—mainly Japanese and Chinese fishermen.

A law regulating the size of the mesh of fish nets is necessary to prevent destructive methods of fishing. Such a law was introduced in the legislative session of 1901, but was defeated.

The following table gives the numbers of fish examined and condemned by the fish inspectors at the Honolulu and Hilo fish markets for the past two years:

HONOLULU FISH MARKET.

	Number of fish examined.	Number condemned.	Percent of fish condemned.	Varieties of fish examined.
Year to July 1, 1902	2,571,796	31,650	1.23	88
Year to July 1, 1903	3,055,829	29,595	.97	89

HILO FISH MARKET.

Eleven months to July 1, 1902	1,582,077	1,409	0.24	76
Year to July 1, 1903	1,048,584	7,250	.694	89

Included in the above tables are other marine animals besides fish, such as turtles, crawfish, crabs, etc.

CORPORATIONS.

On June 30, 1902, there were 409 domestic and 24 foreign corporations in force.

Corporations filed during the year ending June 30, 1903.

Domestic:

Agricultural	1
Mercantile	22
Insurance	1
Benevolent societies	6
Secret societies	3
	<hr/> 33

Foreign:

Mercantile	1
Insurance	1
Loan association	1
	<hr/> 3

RAILWAY ENTERPRISE.

List of railroad corporations which are common carriers.

Name.	Power.	Business.	Location.	Date incorporated.
Kahalui Railroad Co	Steam	Passenger and freight	Maui	July 1, 1881
Oahu Railway and Land Co.	do	do	Oahu	Feb. 1, 1889
Hawaii Railway Co. (Limited) ..	do	do	Kohala, Hawaii ..	Oct. 15, 1896
Honolulu Rapid Transit and Land Co.	Electricity ...	Passenger	Honolulu, Oahu..	Aug. 30, 1898
Hilo Railroad Co	Steam	Passenger and freight	Hilo and Puna, Hawaii.	Mar. 28, 1899
Kohala and Hilo Railroad Co. (construction not begun).				June 27, 1899
Kona and Kau Railway Co. (Limited) (construction not begun).				Aug. 14, 1901

In addition to detailed information given in my last report, I herewith furnish the following:

Kahalui Railroad Company.—Length of line, Wailuku to Paia, 10½ miles; number of miles in track, including switches, 12; number of freight cars, 90; number of passenger cars, 5; number of locomotives, 4 and one building; number of passengers carried 1902, 27,083; passenger mileage made, 152,610, exclusive of special trains; local steamers have brought to Kahului 8,448 tons of freight; local steamers have taken from Kahului 1,518 tons of freight; foreign vessels have brought to Kahului in 1902 33,875 tons of freight; foreign vessels have taken from Kahului 45,458 tons of freight. The foregoing freight was handled over the wharves and over the line together. Local freight hauled between stations, 2,917 tons. Besides, the Kahului Railroad Company owns and operates the steamer *Leslie Baldwin*, two wharves with the necessary appliances for handling freight, and nine lighters of 65 tons capacity each.

Hawaii Railway Company, Limited.—The length of line between Mahukona and Niulii including switches, is 22 miles, laid with 20-pound steel rails, which are now being replaced by 30-pound steel.

Four locomotives are in service, one of them of 16 tons' weight, one of 14 tons, one of 8 tons, and one of 5 tons.

Freight and miscellaneous cars number 70, and 4 passenger coaches are in service.

Fifteen thousand tons of freight was carried during the year ending June 30 at a uniform rate of 10 cents per ton mile. One thousand two hundred passengers were carried at an average fare of 50 cents each. A dividend of 6 per cent per annum on the capital stock of \$50,000 is being paid. Our business is satisfactory. No extensions are projected.

Honolulu Rapid Transit and Land Company.—Mr. Ballentyne, the company's manager, furnishes the following report:

The year ending June 30, 1902, closed with our power plant and rolling stock and the electrical equipment thereof fully completed and in good working condition. We then had 9.26 miles of track in operation, with a regular service of 14 cars on a ten-minute headway.

During the year ending June 30, 1903, we constructed and put in operation 6.62 miles of track, making the total mileage in operation at that date 15.88 miles, with a regular service on 19 cars.

In the month of May we substituted fuel oil (crude petroleum) for steam-generating purposes, in lieu of coal, with great success as to economy, efficiency, and cleanliness. Taking coal at \$7.50 per ton of 2,240 pounds, the saving has been about 15 per cent.

We have had no interruption of any kind whatever in our car service, every part of the plant working perfectly.

The following is a condensed statement showing the results of our car operations for the year:

Total car mileage.....	968, 886
Total passengers carried	4, 779, 933
Gross income	\$235, 912. 13
Operating expenses.....	\$128, 590. 85
Fixed charges, including interest on bonds, taxes, etc....	32, 563. 50
	<hr/>
	\$161, 154. 35
Net revenue.....	<hr/>
	\$74, 757. 78
Per cent of operating expenses to income.....	54. 5
Per cent of operating expenses and fixed charges to income.....	68. 3
Capital stock outstanding	\$1, 000, 000. 00
Bonded indebtedness	\$425, 000. 00

Kohala and Hilo Railroad Company.—The line of road has been surveyed from Hilo via Hakalau, Laupahoehoe, Ookala, Kukuihaele, and Waimea to the port of Mahukona, in the district of North Kohala, a distance of 99½ miles.

Negotiations have been made and are now being made for rights of way, and the preliminary work of the establishment of the road is now well under way. There has been a change of management of the road, and it is confidently expected that the construction of the work will begin at an early date.

Kona and Kau Railway Company (Limited).—Mr. Coerper, one of the promoters of this road, reports as follows:

An engineering survey of the line has been completed from Napoopoo, South Kona, to the Pahala sugar mill in East Kau, a distance of 62 miles, at an elevation of approximately 1,500 feet.

A second survey line has been completed from Napoopoo for a distance of 24 miles, at an elevation from 900 to 1,200 feet.

Rights of way have been secured from the government and from nearly all the private landowners between Napoopoo and Pahala.

A contract was made early this year with a San Francisco firm to grade and equip the entire road. Under this contract some work was done at the Napoopoo terminal

and about a half mile of road graded. These contractors, through financial embarrassment, were unable to continue with their contract and have abandoned work.

The Kona-Kau Railway Company is now negotiating to continue the work itself, with fair prospects of an early completion of the road from Napoopoo to Pahala.

FRANCHISES.

By act 20 of the Session Laws of 1903, entitled "An act to license the brewing and sale of malt liquors," the treasurer was authorized by the legislature to issue licenses to brew malt liquors for terms of fifteen years at an annual payment of \$250. Such license is not assignable without the consent of the treasurer, descends to legal representatives of deceased holder of license, and authorizes the sale by the licensee of such liquors in quantities of 5 gallons in bulk, and 1 dozen quarts and 2 dozen pints in bottles.

Under this statute one license was issued to the Honolulu Brewing and Malting Company (Limited).

Act 30 of the Session Laws of 1903 grants a franchise, not exclusive, to W. W. Dimond and associates, successors and assigns, to manufacture and supply fuel and illuminating gas and its by-products in Honolulu for thirty-five years, with the right to erect and maintain buildings, gas meters, and machinery for making, storing and measuring gas, and to lay pipes for conveying gas under the streets, to maintain lamp-posts and other appliances for lighting streets and other places, and to charge not over \$2.50 per 1,000 cubic feet for gas furnished. Franchise subject to the judgment of the superintendent of public works as to the quality of gas offered for sale and as to the use of streets for laying pipes. Construction to begin within one year after passage of the act conferring this franchise or its approval by Congress. Gas to be supplied to consumers within two years after the beginning of construction. Two and one-half per cent of gross receipts to be paid annually to the government of the Territory.

Act 43 of the Session Laws of 1903 grants a franchise, not exclusive, to H. M. Von Holt and associates, successors, and assigns, to construct and operate a single or double track railroad on the island of Kauai, from Kekaha, in Waimea, to Hanalei, with the necessary switches, turn-outs, stations, power houses, electrical appliances, etc., to be operated by steam, electricity, or compressed air, or all of such motive powers, with right of eminent domain to acquire private lands for the necessary use of such railway. Construction must begin within two years from the date of approval of act 43, or its approval by the Congress, and 10 miles must be completed and equipped with rolling stock within two years from such beginning of construction. Railroad property free from taxation for five years after construction is begun. Term of franchise, thirty years.

Act 48 of the Session Laws of 1903 confers a new franchise, not exclusive, on the Hawaiian Electric Company (Limited), whose former franchise, which was an exclusive one, expired May 3, 1903. The act grants the right to the company for thirty-five years to manufacture and sell electric current for light, power, and other uses in the island of Oahu; to erect and maintain such poles and wires and other appliances that may be necessary to the said business along, over, and under public highways; to erect and maintain lamps and lamp-posts thereon, and to maintain its present power house in Honolulu, and to erect and

operate other power houses and stations as may be necessary; to charge not more than 20 cents per kilowatt hour or 1,000 watt-hours, except a minimum charge of \$2 a month to consumers of electricity for lighting, and to borrow money and mortgage its property therefor. Two and one-half per cent of its gross receipts to be paid to the government of the Territory.

RECOMMENDATIONS.

Cocoanut Island, in Hilo Bay, island of Hawaii, has been reserved as a quarantine station. The Federal authorities do not desire it for this purpose, but prefer another locality on the main shore which can be obtained without expense to the Federal Government, if Cocoanut Island should be reserved by authority as a free public pleasure ground, which has been its aforesaid use. I recommend that this reservation be made.

I further recommend that section 80 of the organic act be so amended that the governor may suspend any officer in regard to the removal of whom the advice and consent of the senate is necessary until the next succeeding session of the senate, and may, except in the case of the auditor, appoint some one to fill the office in question pro tempore until the question of the removal of the suspended officer is settled; such officer not to be entitled to pay for the period of his suspension in case of his ultimate removal by the governor and the senate, or, in the alternative, that the governor may remove any of such officers without the advice and consent of the senate.

That warrants of the auditor be required for payment of legislative expenses, with authority in the auditor to refuse such warrants unless satisfied that charges for service or material correspond to prevailing prices for such work or material.

That the Federal Government assist the Territory in the scientific study of leprosy and investigation of measures and remedies for its cure and amelioration.

That section 55 of the organic act be so amended that bonds and other instruments of indebtedness authorized by the Territory may be made redeemable in ten years instead of five, as now limited, and may be made payable in twenty, twenty-five, or thirty years instead of fifteen, as now required.

That the payment of taxes for the calendar year previous to a general election and before the end of such year be made a prerequisite for registration for voting at such general election, except taxes upon assessments that have been appealed from and are in litigation at the time of registration of voters.

That section 54 of the organic act be so amended that the governor shall not be required to call an extra session of the legislature for consideration of appropriations for the necessary current expenses of carrying on the government and meeting its legal obligations in case of the failure of the legislature to make such appropriations in the regular session, and that in case of such failure the last appropriation bills for such purposes shall be deemed to have been reappropriated.

That a tariff duty on foreign coffee of 2 or 3 cents a pound be established.

That a limited immigration of Chinese laborers to the Territory be permitted, conditioned upon their engaging only in agricultural, mill,

and domestic work for hire during their stay, and subject to deportation at their own expense upon their ceasing to do so.

Treaty recognition of authority in Chinese consuls accredited to the Territory to administer the estates of Chinese citizens dying intestate in the Territory.

That an expert forester be maintained in the Territory for a sufficient time for him, acting with the Territorial board or commissioner of agriculture and forestry, to organize a system for the conservation, development, and management of Hawaiian forests.

That the Federal Government assume the management of Hawaiian light-houses and the improvement and care of Hawaiian harbors, or in the alternative, transfer of the customs revenue received at the ports of entry in the Hawaiian Islands, a portion sufficient for these purposes to the Territory of Hawaii.

That the expenses incurred by the Territory in the management of light-houses and the improvement and care of harbors from and after June 14, 1900, be refunded by the Federal Government.

That buildings for the offices of Federal officials be erected in Honolulu and Hilo.

That a breakwater be constructed for the protection of Hilo Harbor, Hawaii.

Estimates for appropriations.

HARBOR IMPROVEMENTS.

Expense of widening channel, Honolulu Harbor, and dredging channel and harbor to a depth of 34 feet, low water	\$250,000
Maintenance of buoys	6,000
Construction of breakwater, Hilo Harbor	1,000,000
Dredging of projecting coral and sand spits, Pearl Harbor	100,000
Total	1,356,000

LIGHT-HOUSES.

Sites suggested for lights in the Hawaiian Islands, with probable cost of structure and dwelling, without lantern or apparatus, as recommended by Lieut. Commander Hugh Rodman, U. S. Navy.

Locality.	Visible.	Structure.	Cost.	Remarks.
Island of Hawaii:	<i>Miles.</i>			
Kauhola	18	Trestle	\$1,500	Present structure shows light 10 miles, to mark Kauhola reef: would mark channel between Hawaii and Maui if enlarged.
Honokaa Point	10	Stone	1,000	White.
Laupahoehoe Point	10	do	1,500	White (present structure would answer, but hard to see; stone is better).
Alia, known locally as Pepeekeo Point.	15	do	2,000	White flash (present structure would have to be altered).
Paukaa Point	10	do	1,500	Green (present structure would have to be altered).
Southeast Hilo Bay	3	Post	250	Red.
Southwest Hilo Bay	3	do	250	Red (present arrangement is good).
Cape Kumukahi	15	Stone	2,500	White.
Keauhou	12	do	2,000	Do.
Punaluu	5	do .....	.....	White (present structure is good).
Honuapo	5	do .....	.....	Do.
Ka lae	12	Trestle or stone ..	1,500	White.
Kealakekua Bay	5	Stone	1,000	Do.
Kailua	5	do	1,000	Do.
Fisherman's Point, or Keahole Point.	15	do	2,000	Red.
Kawaihae	5	Trestle or stone ..	500	Red (present structure would do).
Mahukona	10	Stone .....	.....	Red (present structure is good).

Sites suggested for lights in the Hawaiian Islands, etc.—Continued.

Locality.	Visible.	Structure.	Cost.	Remarks.
Island of Maui:	<i>Miles.</i>			
Kauiki Head	15	Stone	\$2,500	White.
Nuu	12	do	2,000	Red.
Southwest Cape, East Maui, site of Kinau Light.	12	Trestle	1,500	White (present trestle no good; old).
Molokini Island	10	Stone	2,000	Red.
Makena	5	Post	150	White.
Lahaina	12	Trestle	2,000	Do.
Northwest Point, West Maui.	12	Stone	2,500	Red.
Kahului Harbor	10	Trestle	2,500	White; range, red in front.
Do	5	Post	250	Red.
Keanae Point	10	Stone	1,500	White.
Island of Molokai:				
Halawa Point or Kapu- upoi Point.	15	do	2,000	Do.
Leper Settlement	10	Trestle	1,000	Red.
Lae o Ka Iilo	15	Stone	2,500	White.
Lae o Ka Laau	10	Trestle	2,000	White (present structure should be moved to show up channel).
Kaunakakai	10	Stone on reef	5,000	Red (range lights in harbor could be continued).
Pukoo Harbor	10	Trestle	500	White.
Island of Oahu:				
Makapuu Point	20	Stone	5,000	White flash.
Mokapu Peninsula	10	do	1,500	Red.
Kahuku Point	10	do	1,500	White.
Kaena Point	10	do	1,500	Red.
Barbers Point	15	do	1,000	White (present structure would do).
Pearl Harbor	10	do	1,000	White; range.
Do	5	Post	250	Red; range.
Honolulu	15	Stone	2,000	Do.
Do		Post	250	Green; range.
Diamond Head	12	Trestle		White; red sector (present structure would do).
Island of Kauai:				
Northeast Point Kauai.	12	Stone	1,500	White.
Hanalei	10	Trestle	1,000	White; range, red in front.
Do	5	Post	250	Red.
Mana Point	15	Trestle	2,000	White.
Waimea	5	Post	250	Do.
Ukula Point, Hanapepe Bay.	12	Trestle	1,500	Red.
Makahuena Point	15	do	1,500	White.
Nawiliwili	10	do		Red (present trestle would do; change color of it).
Island of Niihau:				
Lehua or Egg Island	15	Stone	2,500	White.
Cape Kawaihoa	10	do	1,500	Red.
Total			74,400	

In addition to these there should be about 10 or 15 post lights at plantation landings and in some of the small harbors, that will cost \$150 to \$250, and about 20 to 25 large buoys and 15 small ones.

The exact location of the lights can only be selected after an examination has been made of the different points.

The estimates given for structures will fully cover the cost of lights (without lanterns or apparatus) and dwellings.

These suggestions for lights have been made after a personal inspection of each locality and consultation with masters of vessels directly concerned.

An abundance of keepers can be obtained for \$25 to \$30 a month.

An appropriation of \$75,000 for lights and dwellings (lanterns and apparatus not included) and \$25,000 for buoys would be ample.

There is no difficult engineering required. Nearly all sites for lights are sufficiently elevated, so that no tall structures are necessary.

Maintenance of present light-houses \$14,000

NEW BUILDINGS.

Federal building, Honolulu	1,000,000
Federal building, Hilo.....	100,000

I would recommend that such sites of light-houses and dwellings of keepers as may be decided on be transferred to the United States under the provisions of section 91 of the organic act.

Respectfully submitted.

SANFORD B. DOLE,
Governor of the Territory of Hawaii.

O

J
755
V7

REPORT

OF THE

GOVERNOR OF THE TERRITORY OF HAWAII

TO THE

SECRETARY OF THE INTERIOR.

1904.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.

1904.

REPORT

OF THE

GOVERNOR OF THE TERRITORY OF HAWAII

TO THE

SECRETARY OF THE INTERIOR.

1904.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.

1904.



CONTENTS.

GENERAL SUBJECTS:

Page.

1. The Territory	5
2. Number of islands and location	5
3. Resources	5
4. Climate	6
5. Temperature	6
6. Rain	6
7. Health	6
8. Population	7
9. History	7
10. Organization and departments	7
11. County government	8
12. Labor conditions	8
13. Finances	12
14. Chinese fund	13
15. Fire claims	14
16. Embezzlements	15
17. Internal-revenue matters	15
18. Internal improvements	16
19. Light-houses	16
20. Buildings	17
21. Fisheries	18
22. Immediate legislation	19
23. Needed appropriations	21

DESCRIPTIONS AND REPORTS OF THE VARIOUS DEPARTMENTS OF THE GOVERNMENT OF HAWAII:

1. Health	23
2. Schools	27
3. Lands	36
4. Public works	58
5. Finance	67
6. Audit	76
7. Judiciary	80
8. Law	84
9. Police	89
10. Survey	99
11. Meteorology	101
12. Entomology	103
13. Forestry	104

DESCRIPTION OF INDUSTRIES AND ENTERPRISES:

1. Sugar	108
2. Coffee	114
3. Sisal	117
4. Pineapples	118
5. Vanilla	119
6. Live stock	121
7. Rapid transit	125

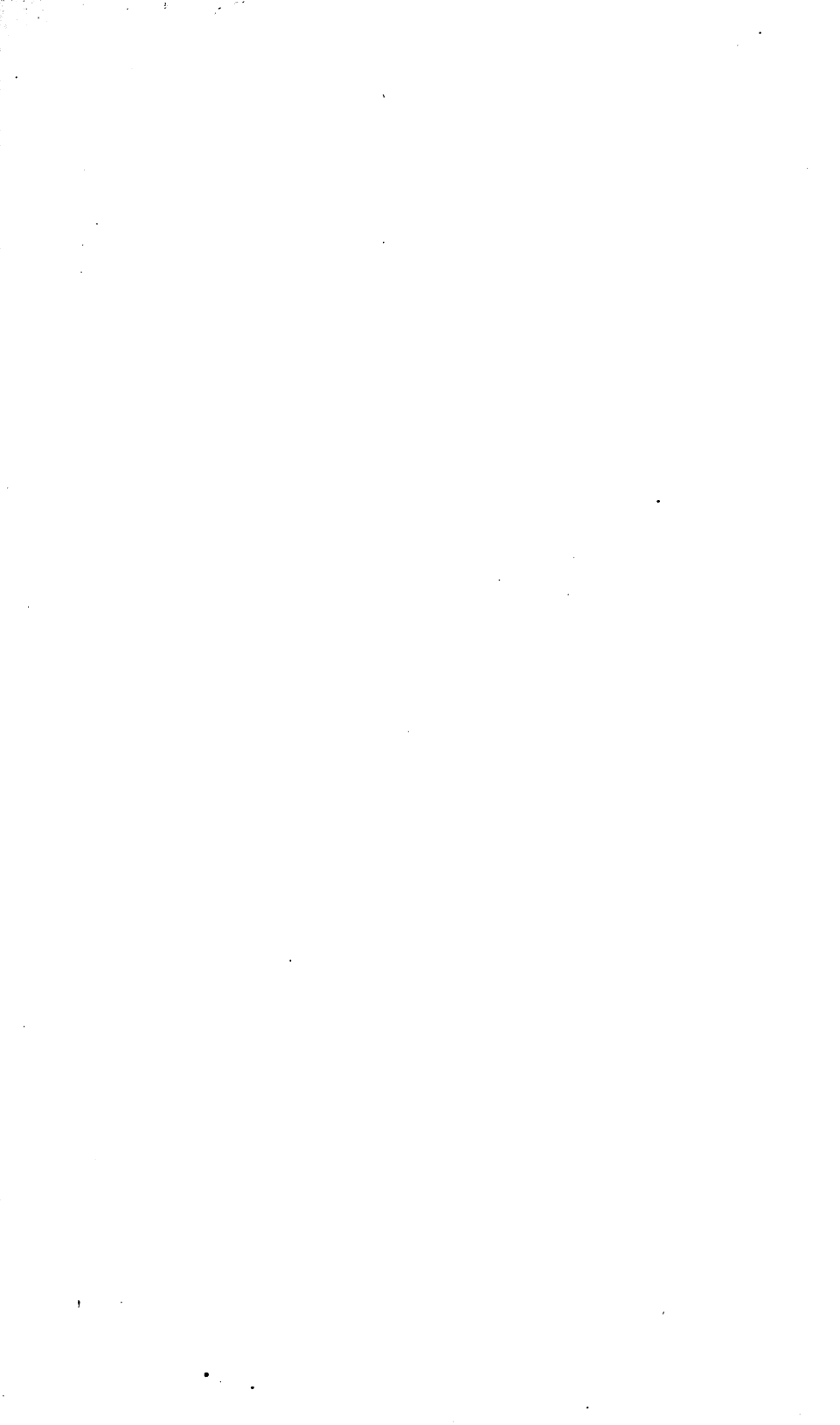
COMMERCE AND NAVIGATION:

1. The commerce of Hawaii	128
2. Steamship communication	133

APPENDIX—COMMUNICATIONS FROM PUBLIC ORGANIZATIONS IN HAWAII RECOMMENDING APPROPRIATIONS:

1. Chamber of Commerce, Honolulu, A	137
2. Chamber of Commerce, Honolulu, B	138
3. Merchants' Association, Honolulu, C	139
4. Board of Trade, Hilo, Hawaii, D	141
5. Improvement Association of Wailuku, Maui, E	143
6. Territorial register and directory for 1904	145

Map of the Territory of Hawaii, compiled in the General Land Office from data on file in United States Coast and Geodetic Survey, Hydrographic Office, Hawaiian government surveys, and other authentic sources.



REPORT

OF THE

GOVERNOR OF THE TERRITORY OF HAWAII.

EXECUTIVE CHAMBER,
Honolulu, Hawaii, September 7, 1904.

SIR: I have the honor to submit herewith my annual report on affairs in Hawaii for 1904:

The Territory of Hawaii is among the most isolated of the political subdivisions of the United States, but by no means the smallest or least important, for has it not upset the claim of the famous Bay State to be the "Hub," in that a circle drawn with the Island of Hawaii as a center shows the Philippines on the circumference to the west and the city of Boston just on the edge to the east, and there are those who ascribe certain opposition to expansion to this fact.

Hawaii is not an insular possession, but an integral part of the Union, organized as a Territory, with as large a measure of self-government as has ever been granted by Congress, and it is destined to play an important part in American supremacy of the Pacific.

NUMBER OF ISLANDS AND LOCATIONS.

The Territory is composed of eight principal islands, with an area of 6,640 square miles—580 square miles more than Connecticut and Rhode Island combined—located in the Pacific Ocean, some 22° north of the equator, 2,100 miles from San Francisco, and 3,340 miles from Japan, at a point which every one of that endless line of steamers must pass that will soon be carrying, through the Panama Canal, an immense traffic between the Atlantic ports of Europe and America and the Orient; commerce that needs no vivid imagination to recognize will far surpass that of the entire Atlantic Ocean, and the impulse of which is already felt in the rapid increase of length and draft of steamers now calling at Honolulu.

RESOURCES.

A study of these pages will show that the resources of this Territory are almost entirely agricultural. Owing to volcanic origin there are no minerals and the forests furnish no lumber. Sugar is the main product and the article which follows shows clearly its importance. Rice has for years stood second, but the restriction of Chinese immigration and competition with Louisiana have crippled its production. Coffee at one time bid fair to take second place in our exports, but the tremendous increase in the world's production of coffee and lack of protection has caused such a fall in the market value that many fields

were abandoned as unprofitable. Undoubtedly Hawaii's opportunities for development consist in the products from tropical plants or vines which can not be grown in the temperate zone—such as sugar, coffee, pineapples, vanilla, guava jellies, sisal, etc.

The government lands are managed by a commissioner of public lands, through whose courtesy the following detailed report is obtained. The proceeds of the sale of lands are by law to be applied to the redemption of the Territory's bonded debt.

The best asset of the Territory is the unbroken record of its people in meeting every public obligation. No matter what changes have occurred or what element was in control, there has never been even a technical default.

Another asset of great value is illustrated by the taxes collected and the willingness with which they are paid. The large corporations, principally those dealing in sugar, pay over 50 per cent of the taxes received, and the revenue from the tax on personal property almost equals that on real. Both facts illustrate a recognition on the part of the people that the government must be supported and shows a disposition to assist that surpasses that of most communities.

CLIMATE.

The climate is unexcelled, and owing to the trade winds and ocean currents, it can not be compared with other points of the same latitude or isotherm.

TEMPERATURE.

The temperature varies from an annual average of 74° on the seashore and 64° on the high land to 32° on the summits of the highest mountains, which are often snowclad.

RAIN.

The range of rainfall is from a few inches per annum on the dry and deserted lava-covered areas on the lee side to some 400 inches or more in special localities on the well watered and wooded slopes to the windward.

HEALTH.

During the year the Territory has been fortunate in avoiding all epidemics, though there have been a few isolated sporadic cases of bubonic plague.

By a reference to the article on the health conditions in the Territory of Hawaii, it will be seen how peculiarly important our relations are to the question of health and how seriously they affect the commerce of the Pacific. The Panama Canal is now a certainty, and it is therefore none too soon to prepare Honolulu for the increased commerce it will bring. Tropical diseases prevalent at the Isthmus are now unknown in Hawaii, and our experience with Oriental diseases shows they find a ready culture under our equable climatic conditions. That the port of Honolulu should be clean concerns not only the Territory of Hawaii, but the entire Pacific coast of the United States, and to keep it so there should be every assistance from the Federal Government. In order that this problem may be approached satisfacto-

rily, it has been very properly suggested by the chamber of commerce that Congress authorize the President to appoint a commission, to consist of the surgeon in charge of the Marine-Hospital Service, a United States engineer connected with the War Department, and the local president of the board of health, to study the situation on the ground here and report to Congress whatever changes in quarantine regulation or regulations and methods of local authority or public works they may deem advisable for bettering the health conditions of this port. Such a plan could not but be beneficial to American interests.

POPULATION.

The last census, of 1900, gave Hawaii a population of 154,001, and it is estimated that those who have left the islands offset the arrivals. In 1902 there were 12,550 registered voters. The organic act allows practically universal suffrage, there being no restriction on even the wards of the Territory at the leper settlement, while the natives were not required to understand the English language in order to qualify as voters, although compulsory education has existed here since 1850, and English has been the only language taught in the public schools since 1887.

HISTORY.

It must not be thought that the Territory of Hawaii is a new undeveloped region or that the people are ignorant. Kamehameha III voluntarily gave the people their magna charta in 1839, and history shows few such instances of unselfish surrender of arbitrary authority and power.

The Kingdom of Hawaii was first recognized as an independent nation in 1843, and continued as such until annexed by treaty in 1898. It was then absorbed by the United States, whose Constitution was immediately enforced and such laws as did not conflict were continued until Congress could act.

ORGANIZATION.

On June 14, 1900, the so-called organic act took effect. Since then the Territory has been subject to the full result of American tariff and coastwise laws, surrendering its former postal and customs revenues to the Federal Government. This act was wisely drawn with a view to as little change as possible from the former conditions to the new. There are now no municipal nor county subdivisions. The same departments and offices that existed under the Republic of Hawaii were in most instances continued.

DEPARTMENTS.

There is a department of public works, which has charge of roads, bridges, wharves, public buildings, waterworks, sewer systems, public lighting plants, etc., throughout the whole group, and under which practically all internal improvements are conducted.

There is a board of health, in charge of the leper settlement and the inspection of fish, meat, and other foods for sale. It supervises the collection of vital statistics for the whole Territory and is given ample authority in case of epidemic. The board has constantly to supervise

the sanitary condition of every locality, and is doing much to inculcate a high public standard of cleanliness.

There is a police department, under a high sheriff, with deputy sheriffs on each island, described in detail hereafter.

A judiciary system exists, with a supreme court of three judges, whose decisions are final. There are six circuit courts, practically one on each island; and district or police courts for each of the subdivisions of the main six circuits.

A board of education, which carries on the work of the graded public schools, was established under the Monarchy, and its records have always been a source of great pride.

A treasury department, in charge of the collection of the entire funds of the Territory, either from taxes or any other revenue, has charge of our financial affairs. In this department there is a tax bureau, with an assessor and collector for each of the islands or main subdivisions. Under this department also falls the recorder's duties, with a single office located in Honolulu. The treasurer supervises all corporations, banks, and insurance companies.

An auditing department does all the bookkeeping and checks all vouchers and accounts.

COUNTY GOVERNMENT.

While the present system of government is both economical and simple, it appears to offer more advantages to the island of Oahu and the city of Honolulu, where, from necessity, nearly all authority centers. From this there has grown up a feeling of discontent in the outer districts, and instead of attempting to better the present conditions, and make through the legislature changes from time to time to provide a more thorough service, there has developed a general desire for county government, which it is thought will be a panacea for all difficulties. Just how municipalities or counties are to be organized is not yet clear. Few, if any, communities in the United States have been confronted with so difficult a task. A de facto active Territorial government, succeeding one in which for years has been centered the functions of both city, county, and State, with all the prerogatives and powers necessary thereto, whose securities have been sold and the proceeds disbursed in the building of local waterworks, sewer systems, and other internal improvements, some of which are revenue producing, is now desired to be cut up, with considerable of its revenue and property turned over, to elect county officials. The legislature of 1903 succeeded in passing a measure of this kind, but after an existence of thirteen days a decision of the supreme court was reached declaring that attempt illegal. At the last special session of the legislature, by joint resolution, the executive was requested to appoint a commission to draft a new county act, and it is now at work preparing such an act to be submitted to the legislature in February, 1905.

LABOR CONDITIONS.

As the sugar and rice industries of the Hawaiian Islands are the only ones employing agricultural or other laborers in large numbers, the needs of the Territory in respect to the numbers, nationality, and kinds of immigrants desired reflect to a large extent the needs of those two industries. At the present time there is, outside of the sugar and

rice industries, very little room for the employment of unskilled laborers. In time to come other industries may be established which may employ a number of laborers, but there is now a necessity for only such class of laborers as can be utilized in the cane and rice fields and in other branches of the sugar business.

The conditions which exist here render it imperative for the preservation of the industries established that laborers be brought from abroad.

Most tropical sugar-growing countries either possess an indigenous laboring population, available for the cultivation of sugar cane, or have within easy reach people who are readily obtainable for tropical field work, and whose physique and constitution enable them to undertake such field work without fear of injury to their health.

There is not such an indigenous population here to supply the demands, and the tendency of the native population is not toward field work. They make good mechanics, and a portion of these are engaged in a variety of trades, but agricultural labor appears to be distasteful to them, and the number employed on sugar estates is small. This being so, it has for many years been necessary to promote immigration of field laborers to the islands, and many countries have been drawn from. There has been regularly conducted emigration from Germany, Norway and Sweden, Azores, Madeira, Portugal, Galicia, China, Japan, and Porto Rico, besides which British, Americans, Italians, and negroes (from the United States) have come in small numbers.

Under the laws of the Kingdom and later of the Republic of Hawaii, immigration from European countries was assisted by the government and industrial interests of Hawaii. Since annexation to the United States it has entirely ceased, as assisted immigration is prohibited by the United States immigration laws, and it is quite impossible to direct a voluntary immigration from Europe direct to Hawaii, the great distance and expense of transportation being insurmountable obstacles in the way of such voluntary immigration.

So far as the Europeans and Americans are concerned, it has, with one exception, been found that they were unfitted for tropical field work; they could not and would not perform it, and never for long labored as "field hands." The one exception noted is that of the Portuguese from Madeira and the Azores, who showed themselves capable of performing good field work. The improved condition of their own countries no longer necessitating emigration, these people show no disposition now to come to the islands, and even if they were willing to emigrate to Hawaii the laws of the United States would hinder them from receiving that assistance without which emigration would be for them impossible. And here it may be stated that if other Europeans can be found who could endure labor in the cane fields of Hawaii, the immigration laws would render them unable. The geographical position of these islands and the great distances which such emigrants would have to travel would necessitate their being assisted in ways which are prohibited by the laws, as they can not themselves meet the cost. Of the Portuguese who originally came to Hawaii as assisted emigrants, those who did not go to the mainland have so prospered that now they do not engage to any large extent as plantation laborers, and their children, by the aid of the excellent Hawaiian free-school system, have fitted themselves for more congenial occupation than field labor affords.

It has sometimes been argued that the Hawaiian sugar industry is in exactly the same position as that of the Southern States, and that if the latter can supply their labor needs, Hawaii should be able to do the same. This, however, is wholly misleading and untrue. If Hawaii had a large indigenous population such as exists in the Southern States, and if Hawaii could draw upon the large streams of immigration entering the United States, from which to supply its requirements, as does that section, then such a comparison might be made. If there were no indigenous population upon which the Southern States could draw to supply the labor required in the fields, and were they wholly dependent upon Italian and other European immigration for labor, they would stand in relation to Europe geographically as does Hawaii in relation to Asia. Furthermore, while there is a stream of Italian and European immigration from which the Southern States can supply their needs, the great distance to Hawaii, coupled with the rigorous laws against assisted immigration makes it impossible for Hawaii to hope for relief from that source, even if such immigrants could stand the climate, which is far more trying than is that of the South. It must be remembered that the Hawaiian Islands are situate south of the Tropic of Cancer between the nineteenth and twenty-first degrees of longitude, consequently on or about the same level with, for instance, Vera Cruz, Manzanillo, Hongkong, Bombay and Burmah, Cuba, Formosa, and Mexico City.

The impossibility of securing a sufficient supply of Hawaiian or other laborers able to endure the work in cane fields forced the planters of these islands into a reliance on China and Japan for the necessary supply. The Chinese have always proved themselves to be a law-abiding, docile, and industrious people, but the United States exclusion laws shut out this nationality from Hawaii as soon as annexation became an accomplished fact, and the only present practicable source of supply is Japan, though a small number have come from Korea.

Since the annexation of these islands the difficulty of maintaining an adequate supply of agricultural field laborers has been very great. Chinese are absolutely prohibited, and while the Japanese still come, the number of immigrant laborers hardly balances the number of Chinese and Japanese who return monthly to their homes, and the scarcity of labor has enhanced its value.

There exists in the minds of some, who are unfamiliar with the nature of field work in a tropical cane field, the impression that white men can perform the work, and that the proper way to conduct a sugar plantation is to divide the land into small lots and give them to white men to cultivate instead of doing the work of cultivation by day laborers working for a wage under one controlling management.

A list of the nationalities that have tried field work in Hawaii has already been given. To-day there are no white men laboring in cane fields here. Those who have tried it have never stayed by it for any length of time, and abundant evidence is forthcoming that the white man can not and will not stand the work of tropical cane fields.

Some little time ago the management of the Ewa plantation, on the island of Oahu, decided to experiment with American farmers. Fifteen families of highly respectable people were carefully selected in the Western States, and all their expenses paid to the plantation, where houses had been erected for them, each with a garden patch surrounding it, and where a large patch of "common land" had been set apart

for their use as pasture for such stock as they desired to keep. Here they were given lots to cultivate in cane, and every help was rendered in the way of plowing and preparing their fields, but notwithstanding this and all the Ewa Plantation Company expended on this effort to raise cane by white farmers, these people were not able to perform the necessary labor, and they drifted away by degrees, so that in about a year none of the fifteen families was left. Other experiments of a similar nature have been made with like results.

In connection with the question of "homesteading" and of encouraging small farming, it is proper here to point out that all the lands cultivated by plantation companies, who find it necessary to irrigate because of the uncertainty of the rainfall, were either arid wastes or poor pasture lands before they were acquired by these companies, who sank artesian wells, established expensive pumping plants, or constructed extensive water ditches and pipe lines, and at great cost poured water over the lands and made agriculture thereon a possibility. If development by homesteads only had been possible the lands which are now cane fields would be in their primitive condition, because their irrigation was only rendered possible by the investment of a large amount of capital.

With the largely increased world production of sugar, it is only with difficulty that cane can be grown here with a profit. The remoteness of these islands from the world's market and the cost of production are factors to be contended with.

It would be of great advantage to the agricultural interests of these islands if the United States immigration laws could be so amended as to permit the assisting of a desirable class of Portuguese laborers from the Azores or neighboring islands, or if there could be a modification of the Chinese exclusion act permitting the immigration to these islands of a limited number of Chinese agricultural laborers, such laborers to be restricted to agricultural labor and domestic service, and strictly prohibited from engaging in mechanical and mercantile pursuits; such immigration to be so regulated that the identity of each laborer may be ascertained and a record kept thereof, and that he may be required at the end of from three to five years from the date of his arrival in these islands to depart therefrom, and that such laborer be not permitted to go from these islands to the mainland. The organic act takes care of this now. No Chinese can go to the mainland from Hawaii.

Under the existing laws of immigration it is impossible for Hawaii to get immigrant classes from Europe or other occidental countries. Hawaii is 5,000 miles from the point where the great numbers of immigrants land in the United States. Hawaiian interests have tried the experiment of bringing immigrants from Atlantic ports of the United States to Hawaii, and have failed. We are therefore forced to take immigrants from the Orient or go without, and to go without means the ruin of Hawaiian industries, a condition that the Congress of the United States can not afford to permit, much less to exist, as it certainly would be making a failure of the industrial situation in Hawaii by the continued application of such a drastic measure. No class of American citizens would be injured by the special legislation above referred to, permitting a restricted immigration of field laborers from China; on the contrary, the interests of all Hawaiian citizens and producers as well as of the planters themselves would be furthered

by such legislation. The population thus created would increase the Hawaiian market for American products and be for the direct interests of workmen on the Pacific coast and in all industries supplying goods to the Territory, while it would not be a competing element upon the mainland.

By the acquisition of distant territory in the Pacific Ocean the domain of the United States is extended in such a degree that in making laws existing conditions should be recognized. In matters of immigration, the restrictions which are required for the protection of the mainland may be very injurious for distant possessions, and a distinction should be made by special legislation so that classes not desired on the mainland can be excluded, and the distant possessions provided for as their needs may require.

GENERAL FINANCES.

The finances of the Territory of Hawaii are in better shape to-day than they have been since the date of annexation by the United States. Prior to that time these islands were in receipt of an annual revenue approximating \$3,000,000. The diversion of the customs and postal revenues caused a material reduction. Notwithstanding this loss the expenses of the Territory were maintained upon their former basis. There had been no reduction in the number of employees or the current expense in any single department, and in many cases the functions of various departments had been extended. In an effort to supply this deficiency an income tax had been passed and every source of revenue had been closely scrutinized, the assessed values of all properties raised, and the whole system of direct taxation largely increased. Still this was insufficient to meet the requirements, and, of late, each year brought deficiencies which were met by anticipating the income. Such a condition of affairs could not be maintained, and it necessitated a special session of the legislature in the spring of 1904. This session lasted only twelve days, and it did most effective work in reducing the amount of expenditures that had been previously authorized and in curtailing the departments in every direction. The result is that, beginning with the 1st day of July, 1904, the appropriations for the year ending June 30, 1905, will be slightly under \$2,000,000, while a conservative estimate of the Territory's revenue for the same period is some \$200,000 in excess.

As the Territory is unable to borrow money to cover any temporary deficit it must pay cash as it goes, or issue warrants, to be redeemed as the income is collected, for bonds can only be issued, as provided by the organic act, for certain public improvements, with the approval of the President.

Notwithstanding the fact that the large collection of taxes in November last year had been exhausted by January of this year and the issuing of warrants has been continued from that time, the expenditures have now been so reduced that by November next every outstanding warrant will be paid and a considerable balance of excess applied toward the deficiencies of the previous years. Thus, in the coming year, it will not be necessary to issue so large an amount of warrants, and gradually the Territory will be reestablished on an absolutely cash basis.

At the present time the total bonded indebtedness of the Territory does not exceed $2\frac{1}{2}$ per cent of the taxable property of the Territory, and by reference to the article following on this same subject by the treasurer of the Territory will be found a detailed statement of the bonded debt.

CHINESE FUND.

In the last annual report of the governor of the Territory some mention was made in reference to this matter, and it was shown that in the changes brought about by annexation and the abrogation by Congress of all laws relating to Chinese immigration the matter of the disposal of this fund was left unprovided for and necessitated local legislation. An act "to provide for the care, custody, control, and payment of \$155,546.70, being the money now in the possession of the treasurer of the Territory designated and known as the 'Chinese fund,'" passed the legislature and was approved April 28, 1903.

By June 30, 1903, there had been paid to the claimants in accordance with this act	\$89,968.30
During the present fiscal year, ending June 30, 1904, there has been paid	56,179.75
A total of	146,148.05
Leaving an unpaid balance of	19,389.65

But in order that a full understanding in reference to this matter may be gained, it is necessary to consider the fund before the passage of the aforesaid act.

Prior to annexation, the Republic of Hawaii maintained and operated a postal savings bank. There was also in existence a board of immigration, with a paid secretary, who received the payments made by the Chinese laborers who had been admitted under the provisions of previously existing laws, by which they were required to work as agricultural laborers, mill hands, or domestic servants, and to pay a part of their wages to the Government toward a fund to be used in sending them out of the country whenever they should cease so to work. This fund was deposited in the postal savings bank to the credit of the board of immigration, in a separate account with each laborer.

Congress in its act to organize this Territory abolished the board of immigration and the postal savings bank, making provision, however, for the payment of all deposits therein. As these accounts were made up and closed, there being no law for the custody and control of this fund, the money was turned over to Mr. Wray Taylor, the former secretary of the board of immigration, and then employed by the Territory as commissioner of agriculture and forestry, who, from his intimate knowledge of the records and affairs of the board of immigration, was expected to pay out the money as it was called for by the claimants. Part of this money was deposited in the First National Bank and part was placed in a separate compartment in the vaults of the treasury.

In September, 1902, former treasurer of the Territory, W. H. Wright, absconded, and it was found he had taken considerable money from this Chinese fund. In December, 1902, Mr. Taylor left the country for a short vacation and, not returning, it was found that he also was short in his accounts with the Chinese fund.

From the meager records and inadequate books kept by Mr. Taylor, the best estimate that can be made is as follows:

In February, 1903, the unpaid claims amounted to.....	\$173,481.25
Wright's shortage	\$16,883.05
Taylor's shortage.....	1,051.50
Total	17,934.55
Balance in the treasury vaults and in the bank of.....	191,415.80

mentioned in the act passed by the Territorial legislature.

Thus no provision has yet been made covering the shortages, the matter being left open to ascertain to what extent the pass books of the laborers had been lost or destroyed and the claimants themselves have disappeared.

FIRE CLAIMS.

The court of claims final awards for the fire originated during the epidemic of bubonic plague amounted to \$1,473,173.

The legislature of 1901 recognized the entire inability of the Territory to meet these claims, yet as an earnest of good faith it made an appropriation of \$1,500,000 from moneys not otherwise appropriated and provided that the moneys from the United States Government as refund of interest on the \$4,000,000 of bonds assumed at the time of annexation should at least be applied to the payment of these claims.

Not long after \$140,000 was received from the United States Government in part payment of the interest advanced by the Territory. In order to make an even 10 per cent payment on the total claims there was taken from the Treasury an additional \$7,317.30. Thus at the time the matter was taken before Congress there was a balance unpaid of \$1,325,855.70.

By act of Congress, approved January 26, 1903, provision was made for the payment from the Federal Treasury of \$1,000,000, and the Territorial treasurer was authorized to issue 5 per cent fire-claim bonds for the payment of the remaining \$325,855.70.

Cash statement, fire claims.

1903.

Accrued interest.....	\$140,000.00
Transfer of cash from treasury	7,317.30
Cash received from sale of 162 fire-claim bonds at par.....	162,000.00
Total cash received to June 30, 1903	\$309,317.30
Warrants paid by treasurer to June 30, 1903.....	304,584.57
Balance cash on hand July 1, 1903.....	4,732.73

1904.

Received from sale of 153 bonds at par to June 30, 1904....	\$153,000.00
Received refund of interest from United States Government	11,589.83
Total receipts to June 30, 1904.....	169,322.56
Warrants paid to June 30, 1904.....	155,139.60
Cash balance July 1, 1904.....	14,182.96
Outstanding unpaid claims.....	13,448.83

Thus there is now an excess of cash in this fund of \$734.13, and there are 11 bonds unsold in the hands of the secretary of the Territory out of the issue of \$326,000 authorized. When the suits pending are disposed of a final settlement can be made and the whole matter closed.

EMBEZZLEMENT.

Shortly after the present administration was inaugurated, and partly due to the consequent changes, several embezzlements by public officials were discovered by the new heads of departments, a detailed statement of which can be found in the descriptive article on the auditor's department by J. H. Fisher.

In every case the employees were at once submitted to a searching examination and immediately put under arrest.

The laws of the Territory regarding embezzlement have not been clear. At the special session of the legislature this was corrected, but, as no law can be retroactive, it is doubtful in some cases whether convictions can be secured.

At present bonds have, in some instances, been required by the heads of departments without any law of authorization, and it is hoped that the next session of the legislature will remedy this by passing an act requiring bonds to be furnished by all officials, high or low, that have the handling of any of the Territory's funds.

INTERNAL-REVENUE MATTERS.

Through the courtesy of Mr. Roy H. Chamberlain, collector of internal revenue, I am enabled to present the following statement of receipts and disbursements of the office of internal revenue in the district of Hawaii during the fiscal year ending June 30, 1904:

Receipt from various sources.

Collections on lists.....	\$2, 846. 34
Fermented liquors.....	14, 470. 00
Distilled liquors (tax paid).....	5, 177. 72
Cigars and cigarettes.....	860. 02
Tobacco and snuff.....	2, 873. 94
Special taxes.....	17, 756. 78
Playing cards (tax paid).....	642. 90
Documentary stamps (post-stamping documents).....	5. 12
Total receipts.....	44, 632. 82

ADDENDA.

Source of "Special tax" collections, as above, and number of special-tax payers:	
Rectifiers of not less than 500 barrels per annum.....	3
Retail liquor dealers.....	452
Wholesale liquor dealers.....	47
Brewers of 500 barrels or more per annum.....	1
Wholesale dealers in malt liquors.....	19
Retail dealers in malt liquors.....	61
Wholesale dealers in colored oleomargarine.....	2
Manufacturers of cigars.....	1
Manufacturers of playing cards.....	1
Total special-tax payers.....	587

No special tax is required to be paid by manufacturers of cigars or playing cards, but they are required to register with this department

and do business under its surveillance, stamping their products according to law. Total disbursements, including salaries and incidental expenses, \$10,810.07.

INTERNAL IMPROVEMENTS.

Mr. C. S. Holloway, whose article on the public works department is presented herewith, not only describes the department, but gives a detailed account of the work of this nature done within the Territory.

LIGHT-HOUSES.

Notwithstanding the fact that on January 1 the Federal Government, through the Department of Commerce and Labor, took over the nineteen light-houses which had been maintained since annexation by the Territorial government, as yet there has been little or nothing done to improve the service and the light-houses themselves are in much the same condition as at the beginning of the year in regard to repairs and improvements.

A proclamation was issued by the President, taking over the sites of all such light-houses as were located on Government property, but the service is hampered from the fact that under the law no repairs can be made until the title of the land has been passed upon by the Attorney-General of the United States. In order to submit these titles to the Department of Justice, it is necessary to have abstracts made, and it is stated that the Light-House Board has no funds available for this purpose.

The service was never up to the standard of the United States, and although the Territory readily turned over to Commander Niblack, of the United States Navy, in charge of the light-house service on these islands, all the data that it had, yet there were no archives, books, drawings, documents, or models, as the lights had been added to from time to time by appropriations from the local legislature, and such alterations and repairs had been made as were found necessary.

It is understood that an invoice of modern lenses and lamps has been received, and a shipment of buoys is en route, so that some improvements are anticipated in the aids to navigation.

It is highly essential that those who are responsible for this service should realize that the methods applicable to long-established light-house districts on the mainland are entirely inadequate and inapplicable to the present conditions here. An appropriation of \$300,000 should be immediately available for this district; another \$30,000 should be added for the maintenance of the service. A light-house tender is absolutely essential for the service, and would be economy for the Federal Government.

The needs of this service are very great. The Builders and Traders' Exchange, of Honolulu, in a petition to the Territory's Delegate to Congress last September, stated that the light-houses in the Honolulu entrance channel are not of a standard required by the importance of trans-Pacific commerce.

The Hilo Board of Trade requests that \$10,000 be appropriated for the erection of a light-house at Leleiwi Point, and their communication, which is published in the Appendix, gives many strong reasons for such appropriation.

The Wailuku Improvement Association asks that suitable lights be erected at certain points on the coasts of Maui, Molokai and Lanai. It also urges the immediate reconstruction of the Lahaina light, in order that it may not be confused with other lights in that vicinity, all of which appears more fully in the association's communication which will be found in the Appendix. Patriotic Americans traversing the Pacific can not yet take pride in this service.

PUBLIC BUILDINGS.

Of the public buildings owned by the Federal Government all, with but few exceptions, were taken over from the Territory at the time of annexation.

The custom-house, located at the wharf, is a coral and stone building which is not adequate for the increased service of that department.

The post-office is a concrete building fairly well located in the center of town, but poorly arranged, and it should be supplanted by a much larger building.

No provision was ever made for the accommodation of the Federal courts, and they are now occupying part of the Territory's judiciary building, without any return to the Territory, and the space can ill be spared.

The internal-revenue department occupies, at the pleasure of the Territory and without compensation, a portion of the basement of the executive building.

ARMY BUILDINGS.

The Engineer Corps stationed here by the War Department occupies a number of wooden sheds hastily erected at the time of the Spanish war, which would do more credit to a stock yard than the housing of Federal troops.

NAVY BUILDINGS.

The buildings erected by the Navy Department consist of a small wooden office building and the coal sheds. The recent arrival of Marine Corps necessitated the removal of the coal in order to provide for the men in the sheds.

TERRITORIAL BUILDINGS.

The Territorial buildings consist of an executive building, which is used as a legislative hall and for administration purposes. It is not well arranged for the latter. The judiciary building provides for the judicial department, the Federal courts, as well as some of the administrative departments, such as the tax office, recorder's office, and the board of education. This building is very badly in need of repair and is very much overcrowded.

Few public buildings exist on the other islands other than schools and court-houses.

PRIVATE BUILDINGS.

Within the last few years there have been many substantial buildings erected in Honolulu, and in no other phase has the progress since annexation been more marked.

The largest and most pretentious is that of the Alexander Young Hotel, a structure covering 42,320 square feet, six and eight stories, said to have cost \$1,500,000.

Hackfeld & Co., sugar factors, completed in 1902 their magnificent new office building, costing over \$250,000.

The "Boston Building," containing offices, was finished in 1901, at an expenditure of nearly \$100,000, without estimating the value of the land.

The "McIntyre Building," containing the First National Bank, cost in construction over \$56,000.

Lewers & Cooke, lumber dealers, built their new office building in the latter part of 1901, at a total outlay of \$130,000.

The Odd Fellows' new building has just been completed at a construction outlay of \$75,000.

FISHERIES.

As far back as 1839, at the time when all the lands and appurtenances were the absolute possession of the monarch, Kamehameha II issued a proclamation, which had the effect of law, giving to the chiefs, who held for him large tracts of land, fishing rights adjoining their lands and running sometimes for a space of 3 miles into the ocean.

At the great division of lands in the latter forties, a land commission was appointed to examine into the titles and carry out the division between the monarch, the chiefs, and the common people. This land commission recognized the fishing rights, and the various legislatures from time to time have enacted laws recognizing the right of the owner of the land to these fishing privileges, of which there are two classes—first, those which are described by metes and bounds in land awards, and secondly, those whose boundaries have been handed down by tradition from time immemorial. Thus the waters surrounding these islands have at no time in the past been free.

By reference to the article on the attorney-general's department it will be noted that Congress abrogated all exclusive fishing rights; but in order to protect vested rights, if any existed, provided that all claims must be filed within two years, and that they should be adjudicated in the courts of this Territory, and if it should be proven they were vested rights, then the Territory must proceed to condemn and pay, from money not otherwise appropriated, for such fisheries, so that the same may be free to the public.

Owing to the high price and large consumption of fish by the people of these islands these rights are of great value; in some instances they are of more value than the land itself. There are at least 150 fishing privileges in the Territory, including almost all the waters surrounding the islands, while but 82 claims have been filed within the two years allowed by the organic act.

The matter was taken to the supreme court of the Territory, which decided that as these rights were granted by a general act of the legislature they were merely privileges and could be set aside by any future general act, and thus the claimants had no vested rights in the fisheries. The claimants, however, were not satisfied, and a case where there was an award granting fishing rights by metes and bounds was appealed to the Supreme Court of the United States, which in May of this year rendered a decision reversing the Territorial supreme court and uphold-

ing the theory of vested right. During argument it was admitted by the court that it was doubtful whether Congress had the authority to place a limit upon the time wherein claimants must bring suit or lose their vested right. Since this decision not only the successful appellant, but probably others have taken possession of their rights and prohibited general fishing within their bounds, the Territory being, of course, helpless in the matter.

The Territorial officials are proceeding to bring all of these claims to trial to ascertain whether the claimants can prove their right to the fishing privileges by competent evidence and, upon such claim being proved, to bring condemnation proceedings as required by the organic act.

The Territory, however, is absolutely unable to meet the payment of these claims as prescribed by Congress. There is already a deficiency, and it is impossible to say when there will be funds unappropriated. In the meantime, however, these private owners, owing to the result of the litigation, will undoubtedly keep possession of their fishing privileges, and, if it is desired by Congress that they should be free to all, it seems impossible to accomplish this without the payment by the Federal Government of the value of these claims.

IMMEDIATE LEGISLATION.

There has been no amendment to the organic act since it was passed in 1900, while by reference to acts creating other Territories it will be seen that Congress has ever been willing to make such amendments as changed conditions require.

In order to obtain as widespread an expression of opinion as possible on the new legislation needed, requests were sent out to various commercial bodies of the Territory, the responses to which are of interest and are found in full in the Appendix.

A. Chamber of Commerce, Honolulu.

B. Chamber of Commerce, Honolulu.

C. Merchants' Association, Honolulu.

D. Board of Trade, Hilo.

E. Improvement Association, Wailuku, Maui.

First. By far the most important question which concerns the future of these islands is the need of some modification of the immigration laws in order to provide labor to develop the resources of this Territory to the fullest extent. By reference, the article on sugar, with the remarks on labor conditions which precede, make it evident that unless some modification can be obtained, the progress of these islands will be checked. Notwithstanding the large number of Orientals that compose our population, it is evident from the school statistics that we are not being Asiaticized. The conditions here differ entirely from those which affect the Atlantic seaboard, and provision for a limited number of Orientals to work in the cane and rice fields of these islands need not necessarily antagonize those who believe in restricted immigration. The immigration laws in reference to the entrance of Chinese are already in force in these islands, and those here are not allowed to enter the ports of the Pacific coast. Thus provision could easily be made for a limited number under restrictions requiring their return at the end of a given number of years and confining them entirely to these islands.

Second. Next in point of importance is the removal of the restriction in the leasing of agricultural lands. At present the Territory can lease no agricultural lands for more than five years, while certain crops, such as sisal (a description of which appears in the following pages), takes four years to mature its first crop, and it is impossible to expect anyone to undertake such a venture on leased lands, with the prospect of having the result of four years out of five of his labor sold at public auction.

If Congress is unwilling to modify this, the only other course to pursue to increase the wealth of these islands is to sell the land outright and cease the leasing of it, which would enable a man with small capital to undertake enterprises which would otherwise be prohibited, and at the same time render the Territory much needed revenue in addition to its taxes.

Third. Section 80 of the organic act should be amended so that the governor may remove any officer appointed by him. This is a question of practical administration. The responsibility for a high standard of efficiency in the Territory is placed entirely upon the executive, and yet, under the organic act, he can not remove a prison inspector or the head of a department whose usefulness has ceased. To meet this situation precedents have now to be established of requiring resignations in advance, which can not be considered satisfactory.

Fourth. The return by Congress of the armory site for Territorial use.

Prior to annexation there existed a national guard of Hawaii, which had a rough armory building located on a piece of Government property just in the rear of the executive building—an ideal site, as its proximity rendered the guard of great assistance in case of insurrection or riot. At the time of annexation, owing to the needs of the War Department during the Spanish war, this site, with the buildings thereon, was taken by the War Department as an army reservation, part of which has since been used by the Quartermaster's Department.

It would greatly assist in fostering the national guard in Hawaii if this site could be turned over to the Territorial government for the erection of an armory and as a parade ground for the guard. There is available an appropriation by the Territory of \$75,000 for such a building. If favorable action can be taken by Congress on this matter early in its session this appropriation would still be available and it would be in conformity with the active interest the Federal Government is taking in raising the standard of the National Guard throughout the Union.

Fifth. That the organic act be so amended as to limit the session of the legislature to forty days, and provide at the same time for a yearly session; also requiring that each session of the legislature should make public a statement of its expenditures, and that the treasurer of the Territory be prohibited from paying out any money without proper and sufficient vouchers.

In accordance with the foregoing, amendment should be made to provide for annual rather than biennial appropriations. This change would give the people more of an opportunity to keep pace with the rapid changes that are taking place; would make for keener interest in local affairs, and in the end for a higher standard of citizenship. It would make the Government more elastic, and as the members would be elected for two years, every alternate year the session would

be composed of precisely the same members as at the preceding session. This would be wholesome in its effect, and result in legislation of a much higher class.

NEEDED APPROPRIATIONS.

First. Immediate provision should be made by Congress for the dredging of the harbor of Honolulu.

By reference to the article on commerce it will be seen that Honolulu stands well up among the ports of the United States of America in point of revenues collected and tonnage. Not only the future of the Territory but that of the whole Union will be affected by our commercial supremacy in the Pacific. This is not a case of dredging a harbor that is annually filled up with silt, but only that of increasing the depth to keep pace with the increased draft and length of the steamers crossing the Pacific. Since annexation the Territory, at its own expense, has dredged the harbor, and only last year cut the bar at the entrance to the harbor to a depth of 35 feet, and thus made provision for all vessels up to that time. Since then the Pacific Mail Company has put on its new boats, the *Mongolia* and *Manchuria*, which it now finds impossible to bring into the harbor. The delay and increased expense of lightering is a heavy tax on commerce, and it would seem as if this appropriation should be made in the interest of the through commerce that passes our doors.

Second. An appropriation should be made by Congress refunding to the Territory the following sums expended between June 14, 1900, and June 30, 1904, as shown by the books of the department of public works:

Harbor improvements and buoys.....	\$11,481.77
Light-houses, maintenance and repairs.....	31,939.99
Dredging Honolulu Bar and Harbor, exclusive of slips.....	131,800.31

Thus \$175,222.07 was expended by the Territory in the maintenance of a service which no other community in the Union has ever been expected to bear by direct taxation. The dredging of Honolulu Harbor was felt to be of vital necessity, and the maintenance of the light-houses was simply from the fact that the people of this Territory when told that Congress had made no provision for this service were humane enough to desire to protect the lives and property not only of American bottoms, but in the vessels of all nations of the world.

Third. Provision should be made for the erection of a suitable public building in Honolulu for a Federal court, internal-revenue office, and post-office. Failing such appropriation, some provision should be made to pay rent to the Territory for the space now occupied in its buildings by the Federal departments, as is done in other Territories.

Fourth. Provision should also be made for the erection of a suitable public building in Hilo, where the post-office, court-house, and internal-revenue office can be located together.

Fifth. For the making of a survey in anticipation of the construction of a breakwater at Hilo I recommend the appropriation of \$10,000.

Sixth. No greater good can be accomplished by Congress in any appropriation that is made by the Federal Government than to provide a fund of \$50,000, under the United States Marine-Hospital Service, for the study of and experiments in obtaining a cure for leprosy. From the beginning mankind has been cursed with this disease, which

has baffled all science, and is found not only in the Philippines, Porto Rico, and Hawaii, but in many of the States and cities of the mainland. Were such an attempt successful, not only would great credit accrue to the American people, but suffering and sorrow would be relieved throughout the world to an extent little realized.

Very respectfully,

G. R. CARTER,

Governor of the Territory of Hawaii.

The Honorable the SECRETARY OF THE INTERIOR.

DESCRIPTIONS AND REPORTS OF THE VARIOUS DEPARTMENTS OF THE GOVERNMENT OF HAWAII.

HEALTH CONDITIONS OF THE TERRITORY OF HAWAII.

By L. E. PINKHAM.

HEALTH AND TRANS-PACIFIC COMMERCE.

The Hawaiian Islands, particularly the island of Oahu and the port of Honolulu, occupy an unparalleled position as to the commerce and travel of the world. Through the single port of Honolulu, the only safe and available harbor in mid-Pacific, passes an enormous and rapidly increasing trans-Pacific commerce—not only oriental and colonial travel, but the ever-growing number of “around the world” travelers. The stay of these great steamers in port is short, but long enough to impose upon the Territorial government an unusual responsibility for not only local health, but that under no circumstances shall Honolulu become a mid-ocean center for the reception or dissemination of contagious or epidemic diseases.

The United States quarantine service is ever vigilant and effective, and is provided with excellent facilities, soon to be so improved as to be unexcelled anywhere. Passengers and employees, when once permitted to land, are subject to the care of local police and health authorities, so both the Federal and Territorial authorities have intimately related responsibilities.

No winter ever aids in stamping out disease. A never-ending summer renders our freedom from disease purely a matter of the continual application of sanitary and hygienic measures, at never-ending expense, vigilance, and responsibility.

It is only just that the legislative and executive powers of the United States Federal Government should recognize these facts and realize that this little community is meeting a burden and responsibility which no other place of its size in the world is called upon to face.

CONSISTENCE AND APPOINTMENTS.

The board of health for the Territory of Hawaii consists of seven members, four of whom are laymen, two physicians, and the attorney-general ex officio. The members of the said board are appointed by the governor, who also appoints the president, with the advice and consent of the senate of the Territory of Hawaii, and are commissioned for two years. All of the members of the said board serve without pay, except the president, whose salary is provided by the legislature. The president presides at the meetings of the board. In case of his

absence any member of the board may be chosen to preside over the meetings of the board. The board appoints its secretary, agents, and physicians, who receive such compensation for their services as is provided by the legislature.

The personnel of the board of health, as at present constituted, is: Chas. B. Cooper, M. D., W. H. Mays, M. D., L. Andrews, esq., attorney-general, M. P. Robinson, esq., F. C. Smith, esq., J. C. Lane, esq., L. E. Pinkham, esq., president.

DUTIES OF THE BOARD OF HEALTH.

The board has general charge, oversight, and care of public health, with the power of making such regulations respecting nuisances, sources of filth, causes of sickness, and interment of the dead as it shall judge necessary for the public health and safety.

The board is required to make, through its president, an annual report to the governor.

SCOPE OF THE BOARD.

The jurisdiction of the board of health is for the entire Territory of Hawaii, including segregation of lepers and the maintenance of the leper settlement on the island of Molokai.

GENERAL HEALTH.

The general health of the Territory for the past year has been good, there having occurred 2,654 deaths from a population of 154,001, an annual death rate of 17.55 per 1,000 inhabitants.

CARE OF THE INDIGENT SICK.

The indigent sick are cared for in the Queen's Hospital, Leahi Home for Incurables, and the Kapiolani Maternity Home, all quasi-public institutions. The financial reports of at least two of these institutions show that they have been an aid to the government in its duties to the indigent sick, and it is probable this same fact will continue, with decreased appropriations, revenues, and expense.

In eighteen months the Queen's Hospital has had an average of 76 indigent patients in its care at the beginning of each month. A new three-story brick building, with all modern improvements, will add greatly to the usefulness of this institution when completed.

In eighteen months the Leahi Home has had an average of 24 indigent patients in its care at the beginning of each month. This is a most desirable institution, and is remarkably situated, in a climatic sense, for incurables. It is believed its dry climate, perpetual summer, and protected situation render the cure of some cases of consumption possible. As nearly all of the cases are absolutely destitute of means, when recovery has proceeded so far they can no longer remain a public charge, they return to low and unfit nutrition, come back, and finally succumb to the disease.

Although the legislature provided a new dispensary, no means were furnished with which to run it. However, generous physicians tendered their free services and charitable citizens contributed funds,

so the benefits of the free dispensary are available to all the poor. Numerous and daily calls are made on its resources. Its office is open morning and afternoon.

INSANE ASYLUM.

The number of the insane has slightly increased during the year, being 177 against 166 a year ago. It is well to remark here that the outdoor life, uninterrupted through the year, and mild relaxing climate pertaining to our islands, affects the insane in a marked degree, rendering them remarkably more tractable and less violent than in a more rigorous climate. Of the several new buildings provided for in the loan act, the executive building has been completed. The large dormitories are designed by the architects to be of superior sanitary construction and to be practically fireproof. They will soon be under construction. Other improvements are completed or contemplated.

LEPROSY.

A spirit of contentment has prevailed over the settlement on Molokai during the past year, which it is hoped may continue for a long period. There have been no incidents that require comment. The particular effort of the year has been that of Dr. C. B. Cooper, as representative of the board of health, to bring the subject of the scientific study and treatment of leprosy for the benefit of the lepers of Hawaii forcibly to the attention of the United States Public Health and Marine-Hospital Service at the annual conference at Washington June 3, 1904. Doctor Cooper was chairman of the committee on leprosy. This effort was supplemented by the presentation of the subject to the American Medical Association at its annual meeting at Atlantic City.

Dr. J. T. McDonald, bacteriologist and pathologist of the board of health, places upon record additional evidence in support of an opinion expressed by him that no patient be sent to a segregated leper colony until the bacillus of leprosy, the *sine qua non* of the disease, has been unmistakably demonstrated to be present in such patient beyond the shadow of a doubt. During the past year, of the 97 patients sent to Molokai he has shown the bacillus to be present in every case prior to the patients being officially declared lepers by the examining board. Many suspects bear such slight and uncertain evidence of the disease that it would be a manifest injustice to declare them lepers from an ocular inspection alone, without the crucial test of microscopical diagnosis. Such demonstration is by no means an easy matter in this class of cases, many of them demanding the most careful and repeated tests; but additional experience in the work crystallizes his former opinion into a settled conviction that if a patient really has the disease, of whatever type, the skin, at least in some slight degree and on some part of the body, will show a lesion in which the bacillus may assuredly be found.

That the United States Government owes certain financial relief in equity toward our leper charges is believed by many, and the board of health issued a booklet in support of the contention which is hereby reprinted for preservation:

**LEPROSY IN THE HAWAIIAN ISLANDS—ITS HUMANITARIAN AND FINANCIAL BURDEN—
AN UNPARALLELED INSTANCE OF PUBLIC PHILANTHROPY.**

[Issued by the board of health of the Territory of Hawaii. Honolulu, H. T. 1904.]

[SEAL.]

LEPER SETTLEMENT.

The leper settlement is at Kalaupapa and Kalawao, island of Molokai. Molokai is very sparsely populated, entirely to one side of the trans-Pacific and interisland travel, and travelers and tourists are not brought into contact or sight of these unfortunates, and are not allowed to visit the settlement.

HAWAII'S REQUEST.

The citizens and officials of the Territory of Hawaii believe the financial burden of leprosy, and the fact that the United States Treasury is unduly profiting from these islands, justify them in asking—

First. Aid in the scientific study and treatment of leprosy, now beyond our means.

Second. Some direct or indirect adjustment of the financial arrangements of the Territory of Hawaii with the Federal Treasury, so that our humanitarian obligations may be properly carried on without the present undue strain.

CARE OF LEPERS.

The lepers are segregated on the Island of Molokai, on a seagirt peninsula, containing 6,348 acres, of extraordinary scenic beauty, and shut out from communication with the outer world by practically impassable perpendicular cliffs, ranging from 2,000 to 4,000 feet high.

Communication by sea is under the exclusive control of the Territorial government. The settlement is conducted on the lines of a very large and scattered village of private cottages and possessions for those physically able to maintain them. The cottages number over 450. There are hospitals for the helpless, and boys' and girls homes. Churches, schools, and means of entertainment are provided. Athletic sports are common. Every possible means is used to remove the feeling arising from restraint. Medical attendance is constant. Members of both sexes of religious orders devote themselves to the care of these unfortunates. Every provision for support and comfort is made free of cost. No service is required of those able to work. Those working receive suitable money remuneration.

Leprosy in Hawaii, statistics as to nationalities affected, census of 1900 and 1904.

Race.	Popula- tion.	Lepers.	
		1900.	1904.
Native Hawaiian.....	37,635	951	764
Portuguese.....	15,675	10	17
English, German, etc.....	5,893	10	12
Americans.....	7,283	5	5
Negroes, Malay, etc.....	638	4	6
Chinese.....	25,762	34	47
Japanese.....	61,115	.....	5
Total.....	154,031	1,014	856

**THE FINANCIAL BURDEN OF LEPROSY IN THE HAWAIIAN ISLANDS DISCLOSED BY
REPORTS OF THE BOARD OF HEALTH.**

Expenditures of the board of health for the period of six years ending December 31, 1903.

Care of leprosy.....		\$876,888.86
Support, segregation, etc.....	\$840,688.86	
Transportation, administration, etc.....	36,200.00	
Ordinary expenditures.....		830,064.65
Administration.....	\$108,750.08	
Sanitation.....	182,961.99	
Quarantine service.....	35,042.29	
Government physicians and medicines.....	144,907.44	
Care of insane.....	187,507.55	
Hospitals.....	170,895.30	
Extraordinary expenditures (bubonic plague years, 1899-1900).....		625,000.00
Total.....		2,331,953.51

MOSQUITO CAMPAIGN.

While not a board of health matter, the chairmanship of the citizens' mosquito committee devolves on the president of the board of health. The work of the past year has fully demonstrated the possibility of mitigating to a great extent this personal annoyance and vicious disseminator of disease. It is hoped citizens of Honolulu will enable us to continue the campaign with even much more persistence, for there has been a marked decrease in the presence of mosquitoes.

GENERAL HEALTH.

The general health of the population throughout the islands for the past year has been good. The duty of the board of health is to conserve public health, and the gentlemen of the board who devote so much of their time to public service without compensation are deserving of public thanks and recognition.

EDUCATION AND THE PUBLIC SCHOOLS.

By A. T. ATKINSON.

Education at the Hawaiian Islands began with adults rather than with the children. Between the years of 1823 and 1827 a peculiar system of schools sprang up, which spread rapidly over the islands to the remotest villages and flourished for about ten years. The high chiefs, with their immediate attendants, were the first pupils. Each chief sent the most proficient scholars in his retinue to his different lands as teachers, with a notice to his tenants to attend school. The eagerness of the people to acquire the novel and wonderful arts of reading and writing was intense, and almost the whole population of both sexes and all ages went to school. These primitive schools at the time of their highest prosperity reached the number of 900, attended by 52,000 pupils, mostly adults.

The first school laws were enacted in 1841 by the King and chiefs in council. School agents for each island, with a general superintendent over the whole, were to be appointed by the King in council. The parents in each village were to elect a school committee, who were to act in conjunction with the school agent in regard to the appointment and support of teachers and the erection of schoolhouses. Teachers were required to have certificates from the school agent. No person born since 1820, who could not read and write, could hold any office or even get married. Attendance at school was made compulsory on all children between the ages of 4 and 14. This has since been amended by substituting 6 for 4 and 15 for 14 years.

With regard to the average knowledge among Hawaiian pupils as compared to elsewhere, it can be stated without contradiction that practically all Hawaiians under 50 years of age can read and write their own language and that nearly all Hawaiians under 20 years of age can read and write English, and the same may be stated of the Portuguese population.

It may be interesting to note that the number of children within school age attending school in 1880 was 70 per cent, in 1890 was 81 per cent, and in 1900 was 96 per cent. Of Hawaiians, 98 per cent attended school within school age; part Hawaiians, 99; Hawaiian born

foreigners, 94; Portuguese, 85; Japanese, 94; Chinese, 92; and of course all those who are American, British, French, and German extraction attended school. There are few places upon the face of the civilized globe where so many children of school age attended school for the full session of the year. Our year begins on September 1, and closes on June 30, and up to the present time, for a period of sixty-four years, there has never been a break in the constant continuation of the schools of the Hawaiian Islands, whether under the Monarchy, under the Independent Republic, or, at the present time, as a Territory of the United States. This is a record which is phenomenal, and greatly to the credit of the various administrations which have had charge of the board and later of the department.

On June 30, 1903, the total enrollment of all classes of schools in the Territory was 18,415. The close of the present period, June 30, 1904, shows an enrollment of 19,299. This is a gain of 884 pupils for the year. Of these, 10,457 were males and 8,842 were females. The enrollment of the public schools has advanced from 13,793 to 14,467, an increase of 674; that of the private schools from 4,622 to 4,832, an increase of 210. Last year there was an increase of 604 in the enrollment of the public schools and of 293 in the private schools. Thus the private schools have fallen off in comparison with the public schools.

There are in all 204 schools in the Territory, of which 147 are public schools supported by public money, and 57 are private schools supported by trust funds, rents, private contributions, and fees. At last report there were 144 public schools, which shows an increase of 3, while the private schools were listed at 59 and are now listed at 57. All the public schools of the Territory from the high school and normal down to the smallest country school are free and are open to all population, regardless of color or race. Every pupil who enters the Territorial public schools stands upon exactly the same plane. No race and no color is considered. The American, the European sits with the Malay, the Chinese, and the Japanese, and their amusements on the playgrounds are conducted upon the same level plane. The schools of the Territory are making the population come to a level. It is an amalgamation of races which probably is not seen in any place outside of Hawaii.

Of the teachers of the Territory in active employment during the last year, there were 646 as against 633 the previous year. Of these 189 were males and 457 were females. The public schools employ 399 teachers and the private schools 247 teachers. This gives an increase of 13 teachers in the public schools and no increase whatever in the private schools. This gives an average of 36 pupils to each public school teacher, and 19 pupils to every teacher in the private schools. The following table gives all statistics upon which this is based:

Number of schools, teachers, and pupils in the Territory of Hawaii.

	Schools.	Teachers.			Pupils.		
		Male.	Female.	Total.	Male.	Female.	Total.
Public schools.....	147	107	292	399	7,947	6,520	14,467
Private schools.....	57	82	165	247	2,510	2,322	4,832
Total	204	189	457	646	10,457	8,842	19,299

NATIONALITIES OF PUPILS.

It must be understood that in classing the nationalities of pupils or in dividing them by nationalities a very large number of them who are not so classed should be classed as Americans, it having been a custom in the islands to divide the population according to descent, even though the birth had occurred on the islands. Thus the third or fourth generation of British residents of the islands for that length of time are still classed as British, though the last generation occurring after annexation would make them American citizens. Of course, all Hawaiians and part Hawaiians are American citizens, and a very large number of the young Asiatics have the same claim.

There is a tendency to complain because Asiatics are educated in our public schools, and the complaint would be justifiable if we were educating those who were not, in the mass, to be voters in the future. The bulk of the Asiatics that are being educated in our public schools are those who will become voters in the future. It has been the aim of the department to get rid of such Asiatics in the schools as simply go there to learn English at an advanced age, say 16 to 17, and the success of the department in this direction has been satisfactory. In some cases teachers like to take in the elder Asiatics because they are very amiable and make good students, but this has been very sternly repressed. It is necessary that future voters should be educated and trained by American methods; otherwise they will be unable to vote intelligently. What we have to do here is what is being done on the mainland, and that is, assimilating a heterogeneous population and making Americans of them.

The number of Hawaiians of unmixed blood in the schools has remained practically stationary, though there is a slight decrease. In 1902 there were 4,903; in the report for 1903 the number was 4,893; the present year the number is 4,877, only a decrease of 26 during the two years. On the other hand, there has been a considerable increase in the number of part Hawaiians; that is, children whose parentage is partly Hawaiian and partly some other nationality. Last year they were reported as 3,018; this year they are reported as 3,234, an increase of 216. In course of time the Hawaiians of mixed blood will evidently equal, and perhaps even exceed, the Hawaiians of unmixed blood. Adding the part Hawaiians and the Hawaiians of unmixed blood together we have now in school 8,111 pupils of Hawaiian parentage, as against 7,911 in school in the year 1903.

The Portuguese children in school very nearly equal the number of Hawaiians of unmixed blood in school, the total number at present being 4,345. All the males of these have been born in the Territory and, as they become of age, will become voters. Last year there were 4,243 Portuguese children in school; thus the increase is 102 during the year. In 1880 there were 55 Portuguese, in 1890 there were 813, and in 1900 there were 3,829. In the course of the last four years there has been an increase of 534, and this in spite of the fact that a considerable number of Portuguese have left the Territory to go to the mainland. It does not, therefore, seem as if there was going to be much of a decrease in the Portuguese population.

There has been a considerable increase in the attendance of Japanese. Last year there were 2,521 in school, this year 2,920 are reported. This shows an advance of 399 during the year. The Chinese pupils have

only very slightly increased, the figures being 1,650 for the present year and 1,554 last year, making in all 96 increase. The total Asiatic pupils in our schools amount to 4,570. The total Hawaiians, Americans, and Europeans amount to 14,729.

If we take the matter up on different lines and eliminate all the pupils of Hawaiian blood, viz, 8,111, we have a residue of American and European blood 44 per cent in excess of those of Asiatic blood, and this with the Hawaiian blood gives an overwhelming majority against the Asiatic blood, with the other blood constantly becoming stronger. This Territory, as far as its school statistics show, is not becoming Asiaticized. The table annexed gives details of information.

Nationality of pupils attending schools in the Territory of Hawaii.

	Public.	Private.	Total.
Hawaiian	4,121	756	4,877
Part Hawaiian	2,253	981	3,234
American	560	317	877
British	129	76	205
German	167	154	321
Portuguese	2,937	1,408	4,345
Scandinavian	58	67	125
Japanese	2,483	437	2,920
Chinese	1,192	458	1,650
Porto Rican	446	110	556
Other foreigners	121	68	189
Total	14,467	4,832	19,299

TERRITORIAL TEACHERS.

The year ending June 30, 1904, shows that there were 646 teachers employed in the services of both public and private schools—this against 633 engaged in education in 1903. Of these, 399 are employed in the public schools and 247 in the private schools. According to the last report, 386 teachers were employed in the public schools, and this gives an increase of 13 for the public schools and no increase for the private schools. It may be well to point out that many of the teachers employed in the public schools are those who have been trained in our normal school, and that as time goes on it is the earnest desire of the department that all who are employed in public schools should come from the ranks of those who attended the Territorial schools. From the point of view of the department, those who have been educated in the schools in the Territory and who have thereafter, either by attending the normal school established in Honolulu or by attending other institutions of instruction upon the mainland, fitted themselves for positions in their own islands, are the persons who should take charge of our schools. It may be noted that the number of American teachers, which was 327 on June 30, 1903, is now 314. The explanation of this is that the young men and young women who have been educated in our schools have now reached a position in which they can take charge of very much more important institutions than they used to be able to do. This certainly shows the effect of the education that the department has been striving to give to the Territory. Thus it will be seen that in 1903 there were 78 Hawaiians of pure blood teaching school. To-day there are 83. At the same date there were 72 part Hawaiians and to-day there are 86, and this goes to show that the work of the department is being concentrated upon the people of the islands, and

that the people of the islands are responding to the effort that the department makes.

It is proper to say here that there is a regular system of certificates which are gained by examinations, and that we have a regular set of inspectors who view the work done by the teachers and who report weekly to the superintendent and board of commissioners.

The following table shows the number of teachers employed both in the public and private schools, and it can be noted that the department of education employs more Hawaiians, part Hawaiians, and Portuguese than the private schools do, the numbers being, public schools, Hawaiians, 61; private schools, Hawaiians 22; public schools, part Hawaiians, 73; private schools, part Hawaiians, 13; Portuguese, public schools, 23; private schools, 11; Japanese, public schools, none; private schools, 9; Chinese, public schools, 3; private schools, 13. The 3 Chinese are citizens who have been born and educated here.

Comparative nationality of teachers.

	Public schools.	Private schools.	Total.
Hawaiian	61	22	83
Part Hawaiian	73	13	86
American	179	135	314
British	43	16	59
German	7	8	15
Portuguese	23	11	34
Scandinavian	7	7	14
Japanese	3	9	9
Chinese	3	13	16
Other foreigners	3	13	16
Total	399	247	646

DISTRIBUTION OF SCHOOLS, TEACHERS, AND PUPILS.

The island of Hawaii, which is the largest of this group, has the largest number of schools, though it has not the largest enrollment. On Hawaii there are 57 public schools and 10 private schools, the total enrollment being 5,816, of which 4,728 are in public schools and 1,078 in private schools. There are 132 teachers engaged in the public schools and 36 in the private schools. On Oahu there are 35 public schools and 30 private schools, the former taught by 149 teachers and the latter by 108. The total enrollment for the island of Oahu is 7,987, of which 5,176 pupils are in public schools and 2,811 are in private schools. The large number of schools on Hawaii can be explained by the fact that many of them are in isolated villages, where the population is small and where the attendance falls short, in some cases, of 20 children. It has been the policy of the department to keep open schools where the number does not fall below 12. On the other hand, on the island of Oahu the population is concentrated and there are no schools which fall below from 30 to 40 children, while in Honolulu, which is the chief center of population, there are two schools which number in the neighborhood of 600 each and another which counts 450 or more.

The number of private schools on the island of Oahu is very much larger than upon any other of the islands. The reason for this is that Honolulu is the headquarters for all denominational schools, as well as schools of the eleemosynary character. Out of the 57 private schools of the Hawaiian Islands, 30 are situated in Honolulu. The denomina-

tional schools are carried on by the Roman Catholics, Episcopalians, the German Lutherans, and others. The Roman Catholic schools, which are quite large, are conducted by the Sisters of the Sacred Heart for girls and the Brothers of Mary for the boys. The Episcopalians also make a sex distinction and have a school for boys, while that for girls is conducted at St. Andrew's Priory. The bequest of the late chiefess Bernice Pauahi Bishop created the Kamehameha schools, and here also there is a sex distinction, there being a Kamehameha school for boys and another for girls. The plan of the department of education, on the other hand, is to educate the sexes together, and it is asserted that as far as these schools are concerned this is by far the best method. At Oahu College and its preparatory annex the plan of coeducation of sexes is carried out even in the boarding department, so that this may qualify my remarks made above, confirming my belief in coeducation even in boarding schools.

There are a few private schools, but they are few, which are conducted for profit. The general character of the public schools on the islands is so high that it makes it hard for a teacher working purely for profit to carry on a private school.

AGES OF CHILDREN.

The school laws of the Territory demand that all children between the ages of 6 and 15 must attend some school. Between these ages at the present time there are 16,897 children in school, as against 16,218 in 1903 and 15,525 in 1902. There are also 1,182 children under 6 years of age who are attending, for the most part, kindergartens supported by voluntary contributions. Of these a considerable number are Asiatics. Of course, the attendance of these 1,182 children is entirely voluntary, whereas the attendance of the 16,897 children between the ages of 6 and 15 is obligatory, and nonattendance can be punished by legal methods. Of those above 15 years of age there are 1,220 in school, as against 1,116 reported last year. Of these, 648 are in private schools and 572 are in public schools. The Honolulu high school, the normal school, and the Lahainaluna agricultural school chiefly provide for those who are accounted for in the public-schools record. The elder pupils of the private schools will be found at Oahu College, St. Louis College, Kamehameha schools, and other establishments of the same class. These figures show that almost the whole of the school population, according to the laws of the Territory, is being instructed, and that very few are growing up in this Territory who will not have a fair knowledge of oral and written English, together with a fair amount of instruction in the elements of arithmetic. Besides this, the pupils cultivate a general knowledge of current events, as discussed in the schools, and the hand and eye are trained as well as the mind.

Ages of all pupils in all schools of the Territory of Hawaii.

PUBLIC SCHOOLS.

	Under 6.	6 to 8.	8 to 15.	Above 15.
Boys	213	2,392	5,049	291
Girls	145	1,983	4,113	281
Total	358	4,375	9,162	572

Ages of all pupils in all schools of the Territory of Hawaii—Continued.

PRIVATE SCHOOLS.

	Under 6.	6 to 15.	Above 15.
Boys.....	399	1,709	402
Girls.....	425	1,651	246
Total	824	3,360	648

TOTAL IN PUBLIC AND PRIVATE SCHOOLS.

Boys.....	612	9,150	693
Girls.....	570	7,747	527
Total	1,182	16,897	1,220

MANUAL WORK.

Upon this branch of education the superintendent and the commissioners are very eager to make improvements. Some years ago the matter was almost entirely neglected. Gradually, however, it has been possible to interest both the inspectors and teachers in this most important portion of the public school education. Of course, there are those who still retain the idea that education simply means the cultivation of the memory and other attributes of the brain, but from the point of view of Superintendent Atkinson and his colleagues, true education consists not only in cultivating those attributes but in making the hand follow the orders of the brain. The work of our normal school has greatly facilitated an improvement in manual training in the schools. The young teachers who go forth, both male and female, are all capable of giving instruction in sewing, knife work, weaving, agriculture, and drawing. Every school has its sewing chest. Every school has its agricultural implements; and in those places where there are minor industries peculiar to that district, the department strives as much as possible to have instruction given in that particular industry. Of course, in the larger schools it is possible to carry out these plans better than in the smaller schools, but there is not a school in the Territory under government control which does not instruct in some portion of manual training. Among the very small schools there is nothing done except agricultural work. In the larger schools everything is carried out, and in some of them even printing, leather work, bookbinding, and other mechanical arts have been encouraged and have met with considerable success.

Number of pupils in sewing, agriculture, manual work, and drawing in the public schools.

	Sewing.	Knife work.	Agriculture.	Lauhala and bamboo work.	Mat weaving.	Other manual training.	Drawing
Hawaii	1,754	58	1,783	125	2,835	43	3,154
Maul	1,043	49	717	146	1,698	15	1,686
Molokai	97	8	91	39	86	20	154
Oahu	2,696	130	3,009	134	4,426	144	4,555
Kauai and Niihau.....	823	31	573	22	28	115	1,403
Total	6,413	276	6,173	466	9,068	387	10,902

SCHOOLHOUSES AND TEACHERS' COTTAGES.

Under the loan fund bill the department has been enabled to make a large number of improvements in the school buildings. Many of these were in a very dilapidated state and had to be removed in order to give the proper accommodation for the ever increasing number of pupils in the Territory. In several cases the department was under the expense of hiring houses to be used as schoolrooms and also hiring cottages for the teachers.

The conditions in the Territory of Hawaii with regard to the residences are peculiar. In the outer districts it is in many cases practically impossible for teachers either to find domiciliary accommodations or board. Thus the department has to build its own cottages. In the past there have been many cases where able and desirable teachers were perfectly prepared to take up the work of instruction, even though they were isolated from many of the desirable things of life, but they found it was absolutely impossible to obtain even house room or board. Consequently their services were lost to the department. In Honolulu—which is a modern town—in Hilo and in Wailuku there is not the necessity of supplying teachers with accommodations and they are not so supplied, but in the country districts it has been absolutely imperative. It must be thoroughly plain to anyone who considers the matter for a moment that at the plantation schools it is not desirable that the teacher should be dependent for his house room upon the plantation authorities, nor is it desirable that a teacher who is to keep the dignity of his position should be housed in the same way the laborers are. This accounts for the number of teachers' cottages which have been recently erected.

The main schools which have been or are going to be erected under the loan act fund are, first, the Royal School, a twenty-room building, which will cost \$41,915. This will probably be completed by December. An additional building to the industrial school at Waialeale to accommodate 50 boys has been erected at a cost of \$10,185. At Wailuku, on the island of Maui, a school which will grow into the high school of that island is in course of erection and will cost in the neighborhood of \$23,000. A new normal school is to be erected in Honolulu, but has not yet been advertised, because of the difficulty of obtaining a site. This site has now been settled upon and the building will be commenced probably in September. Bids for the erection of schoolrooms and dormitories for the agricultural school at Lahainaluna, island of Maui, are now published and the work upon the establishment will probably be commenced early in September. A building to contain the commercial department of the high school has been erected upon the high school grounds, which are of considerable extent. It may be stated that the present high school is being conducted in the mansion which was erected by Princess Ruth and which afterwards reverted to the high chiefess Bernice Pauahi Bishop, and from her estate it was purchased for its present purpose. The building is a very handsome one and has very expensive decorations in the interior. The grounds are well planted and the whole situation is very picturesque. On the same grounds a grammar annex to the high school has been constructed, containing five rooms. Another important school which has been built is that at Lihue, island of Kauai, with six rooms.

LAHAINALUNA.

Lahainaluna was founded in September, 1831. The land upon which it is situated had been granted by chiefs to the school. It is the oldest educational establishment in the Hawaiian Islands. For a long time it was the leading educational light for Hawaii. The first newspaper ever published in the Pacific Ocean was issued from the printing press which was set up there. Later a bookbindery was added and a number of text-books in the Hawaiian language were published from this institution. After a long career of success the institution, from some cause or other, began to fail, and for the last twenty years there has been a lack of vitality about the establishment. Causes for this may be traced to the change in our school system, to the establishment of the Kamehameha schools, to St. Louis College, and a lack of proper funds for carrying on the school.

At the beginning of this school year the department of public instruction undertook a complete reorganization of Lahainaluna. Arrangements were made for erecting proper and convenient buildings and an entirely new set of instructors was obtained. The aim of the institution at the present time is to be an agricultural school. A carpenter shop, a blacksmith shop, and a modern printing outfit have been supplied. Draft animals have been purchased and a considerable quantity of land has been put into cultivation. But for the delay in erecting the new buildings the institution could have very many more pupils than it supports at present. There is every hope, however, that during the coming year a complete success may be made of the place. A thoroughly revised curriculum will be adopted at the commencement of the year. There have been some disputes about water and land between the plantation and the school authorities, but these are now in process of adjustment, and that will give a clear field for the future.

WAIALEE INDUSTRIAL SCHOOL FOR BOYS.

This institution is situated on the northern side of the Island of Oahu, close to the railroad. It is distant about 70 miles from Honolulu. On the 13th of May, 1903, the boys from the Honolulu Reformatory School were moved there. At that time there was only one building and no cultivation. During this current year another dormitory building together with a dining room and other conveniences have been erected and also a cottage for the superintendent. These were built by contract. The boys have erected a large convenient barn, a blacksmith shop, a carpenter shop, a poi house and a house for the gasoline engine. There are now 5 acres of sweet potatoes, 500 banana plants, half an acre of sorghum, and about 2 acres devoted to minor vegetables, beans, tomatoes, onions, carrots, beets, watermelons, squash, etc. The whole lower part of the estate below the bluff has been fenced in, this also being the work of the boys. A small dairy has been established in which there are 9 cows, 1 bull, and 3 calves. Two horses and 2 mules are used in plowing. There is a growing herd of pigs, and a considerable number of well-bred fowls and ducks. The discipline of the institution is very good and a number of boys seems thoroughly reformed. Indeed, there are several who have been discharged who are earning good wages and behaving themselves. There is a regular system of parole by which boys whose conduct is

thoroughly satisfactory are allowed to leave before their terms are up, they reporting monthly either at the department or to the school agent of the various districts. If the conduct of the paroled boys is unsatisfactory they are immediately returned to the school. There are now 110 boys on the books of the institution.

GIRLS' INDUSTRIAL SCHOOL.

The girls' industrial school has been established in the old boys' reformatory school building. At the present time there are 11 inmates. In organizing an institution of this kind there are always difficulties to be met, but these have been met and there seems every probability that before the next year closes the institution will be doing the reformatory work which we so much desire. The girls come from the lowest and most vicious classes and are a harder problem to reform than the boys. They are instructed in housework, sewing, washing, ironing, cooking, and lace making. After they have been in the institution a few months it is noticeable that their physical condition is very much improved.

PUBLIC LANDS AND LAND LAWS.

By J. W. PRATT.

The original group of the Hawaiian Islands consisted of Hawaii, Maui, Molokai, Kahoolawe, Lanai, Oahu, Kauai, and Niihau, together with a number of very small adjacent points of land which are known as separate islands, but which amount to nothing unless taken in conjunction with the larger lands. Within late years other small islands in the chain extending to the north and west from the main group have become, by annexation, a part of what is now known as the Territory of Hawaii. The main group is situated between 19° and 23° north of the equator, and is about 2,000 miles west of the Pacific coast of America. This is exactly the same position north held by Cuba.

The combined area of the Hawaiian Islands is about 6,500 square miles, divided as follows as to the larger islands:

	Sq. miles.
Hawaii	4,015
Maui	728
Oahu	600
Kauai	544
Molokai	261
Lanai	135
Niihau	97
Kahoolawe	69

Our largest island, Hawaii, is about the size of the State of Connecticut, and the combined group about equals the area of New Jersey.

LAND OWNERSHIP AND LAND LAWS.

Prior to 1839 absolute ownership and control of all lands vested in the King. In 1839 and 1840 an attempt was made to pass a law that would give some title to occupants of lands, but the law appears to have proved a failure, for conditions remained practically the same

until 1846, when a law was passed authorizing the organizing of a commission to take evidence as to occupancy and to award, to those entitled to receive the same, the lands in fee. This division, or *mahele*, of the lands took place March 7, 1848, at which time a portion of the land was reserved by the King as a private property of the Crown, a portion allotted to the chiefs and a portion to the people. On the 8th day of March, 1848, the King conveyed a large portion of all the lands, that he had retained at the division of the previous day, to the Government. The commission awarded ownership on over 11,000 claims, mostly of very small area. The result of this division of all the lands was about as follows:

	Acres.
The Crown	1, 100, 000
The Government	1, 413, 000
The chiefs and the people	1, 647, 000
A total	4, 160, 000

This ownership applied mostly to Hawaiians, as by the laws of 1850 and 1854 foreigners were practically prohibited from ownership in lands, except under special conditions and circumstances.

Immediately following the division, or *mahele*, the Government commenced to sell and lease its lands in large tracts in order to replenish an empty treasury. Naturally the best lands went first, as time passed the portions remaining being of the inferior class. The value of the remnant has decreased until at the present time the government lands are great in area but of the smallest value, tens of thousands of acres being barren lava, upon which not a bit of vegetation has grown from fifty to one hundred years. The result is that by far the largest portion of the lands depended on for sites for homesteads and revenue-producing purposes is now the land formerly known as the Crown lands.

By an act of the legislature approved January 3, 1865, the Crown lands were rendered inalienable, and the commissioners were allowed to lease the lands for periods of not more than thirty years. This act was framed apparently to safeguard the revenues from the land and to prevent the commissioners from selling them off in any sized tracts and at any price, as the Government lands were sold.

By an act of 1874 the minister of the interior was allowed to sell, lease, or otherwise dispose of Government lands in such manner as he might deem best. This act was amended in 1876 and 1878 by making it mandatory to sell or lease only at public auction, after advertising for at least thirty days.

By an act approved August 29, 1884, the minister of the interior was allowed to issue five-year homestead leases on lots of not less than 2 and not more than 20 acres, the lands to be appraised and the annual rental to be equal to 10 per cent of the appraised value of the land; residence and fencing required and payment of principal within five years, failing which the lands reverted to the Government.

By an act approved September 6, 1888, the above act was amended to allow lands in Kahikinui and Kipahulu, Maui, and in Kona and Puna, Hawaii, to be leased under the homestead act in tracts of not more than 100 acres. This act was again amended by act of November 14, 1890, and the term was made ten years and the annual rental reduced to 5 per cent of the appraised value.

The present land law was enacted by the legislature of the Republic of Hawaii on the 14th day of August, 1895, and with slight amendments continued in force by an act of Congress on the 27th day of April, 1900, and approved on the 30th day of April, 1900, by President McKinley. The following is a digest of our present land law.

DIGEST OF THE LAND ACT OF 1895.

[As continued in force by an act entitled "An act to provide a government for the Territory of Hawaii" passed by the Fifty-sixth Congress of the United States of America, on the 27th day of April, and approved on the 30th day of April, A. D. 1900.]

(With reference to unoccupied lands.)

The land act of 1895, as aforesaid, having for its special object the settlement and cultivation of the government agricultural and pastoral land, vested the control and management of public lands in a commissioner.

For the purposes of the act, the Territory of Hawaii is divided into six land districts, as follows:

- First. Hilo and Puna, on the Island of Hawaii.
- Second. Hamakua and Kohala, on the Island of Hawaii.
- Third. Kona and Kau, on the Island of Hawaii.
- Fourth. The islands of Maui, Molokai, Lanai, and Kahoolawe.
- Fifth. The island of Oahu.
- Sixth. The island of Kauai.

The commissioner is represented by a subagent in each district.

Public lands for the purposes of this act are classified as follows:

1. *Agricultural lands*.—First class: Land suitable for the cultivation of fruit, coffee, sugar, or other perennial crops, with or without irrigation.
- Second class: Land suitable for the cultivation of annual crops only.
- Third class: Wet lands such as kalo and rice lands.
2. *Pastoral land*.—First class: Land not in the description of agricultural land, but capable of carrying live stock the year through.
- Second class: Land capable of carrying live stock only part of the year, or otherwise inferior to first-class pastoral land.
3. *Pastoral-agricultural land*.—Land adapted in part for pasturage and in part for cultivation.
4. *Forest land*.—Land producing forest trees but unsuitable for cultivation.
5. *Waste land*.—Land not included in the other classes.

The act provided three principal methods for the acquirement of public lands, under systems known as (1) homestead lease, (2) right of purchase lease, (3) cash freehold.

GENERAL QUALIFICATIONS OF APPLICANTS.

Applicants for land under systems named above must be over 18 years of age, must be citizens by birth or naturalization or have received a certificate of declaration of intention to become a citizen, be under no civil disability for any offense, nor delinquent in the payment of taxes. Special qualifications are named under the respective systems.

HOMESTEAD-LEASE SYSTEM.

The homestead-lease system permits the acquirement of public land by qualified persons without other payments than a fee of \$2 upon application and a fee of \$5 upon issuance of homestead lease.

The limit of area in the different classes of land which may be acquired under homestead lease is 8 acres first-class agricultural land; 16 acres second-class agricultural land; 1 acre wet (rice or kalo) land; 30 acres first-class pastoral land; 60 acres second-class pastoral land; 45 acres pastoral-agricultural land.

SPECIAL QUALIFICATIONS OF APPLICANTS FOR HOMESTEAD LEASE.

Any person having the general qualifications (as to citizenship, etc.), who is not the owner in his own right of any land in the Territory of Hawaii, other than "wet land" (rice, taro, etc.), and who is not an applicant for other land under this act may apply under this part of the act, and such application may cover one lot of wet land in addition to other land, if reasonably near. Husband and wife may not both be applicants.

Applications must be made in person at the office of subagents of the district, accompanied by sworn declaration of qualifications, and a fee of \$2.

CERTIFICATE OF OCCUPATION.

The successful applicant receives a certificate of occupation which entitles him to occupy the described premises and to receive a homestead lease for nine hundred and ninety-nine years, if conditions of certificate of occupation have been fulfilled, the conditions being—

That the occupier shall, before the end of two years, build a dwelling house and reside on the premises. He shall maintain his home on the premises from and after the end of two years from date of certificate. He shall before the end of six years from date of certificate have in cultivation not less than 10 per cent of the land, or have in cultivation 5 per cent of the land and, in good growing condition, not less than ten timber, shade, or fruit trees per acre on agricultural land, or if pastoral land, fence the same within six years.

He shall pay the taxes assessed upon the premises within sixty days after the same are delinquent.

He shall perform any conditions of the certificate for the planting or protection of trees, or preservation or destruction of vegetable pests that may be on the premises.

CONDITIONS OF HOMESTEAD LEASE.

The lessee or his successors must maintain his home on the leased premises, must pay the taxes assessed upon the premises within sixty days after the same are delinquent, and perform any condition of the lease relating to protection or planting of trees, or destruction and prevention of vegetable pests.

Lands held under a certificate of occupation or homestead lease are liable to taxation as estates in fee.

In case of the death of an occupier or lessee his interests, notwithstanding any devise or bequest, shall vest in his relations, in the order prescribed in the act, the widow or widower, being first in order, then the children, etc.

Certificate of occupation or homestead lease, or any interest thereunder, is not assignable by way of mortgage nor is the same subject to attachment, levy or sale on any process issuing from the courts of the country. Neither the whole nor any portion of the premises may be sublet.

Surrender may be made to the government by an occupier or lessee having the whole interest if all conditions to date of surrender have been fulfilled, and the person so surrendering is entitled to receive from the government the value of permanent improvement, whenever the same is received by the government from a new tenant.

RIGHT OF PURCHASE LEASES.

Right of purchase leases, for the term of twenty-one years, may be issued to qualified applicants, with the privilege to the lessee of purchasing at the end of three years and upon the fulfillment of special conditions.

QUALIFICATION OF APPLICANTS.

Any person who is over 18 years of age, who is a citizen by birth or naturalization of the United States, or who has received a certificate of declaration of intention to become a citizen, who is under no civil disability for any offense, who is not delinquent in the payment of taxes, and who does not own any agricultural or pastoral lands, in the Territory of Hawaii, may apply for right of purchase lease, the limit of areas which may be acquired being 100 acres first-class agricultural land, 200 acres second-class agricultural land, 2 acres wet (rice or taro) land, 600 acres first-class pastoral land, 1,200 acres second-class pastoral land, 400 acres mixed agricultural and pastoral land.

Any qualified person, owning less than the respective amounts stated in the foregoing list, and which is not subject to residence conditions, may acquire additional land of the classes already held by him, but so that his aggregate holding shall not be in excess of the limit named; or if desiring additional land of another class may acquire the same according to ratio established between the various classes.

Husband and wife may not both be applicants for right of purchase leases.

Application must be made in person at the office of subagent of the district, and must be accompanied by a fee equal to six months' rent of premises, fee to be credited on account of rent, if application is successful. In case of more than one application for same lot the first application takes precedence.

CONDITIONS OF RIGHT OF PURCHASE LEASE.

Term: Twenty-one years.

Rental: Eight per cent on the appraised value given in lease, payable semiannually.

The lessee must from the end of the first to the end of the fifth year continuously maintain his home on the leased premises.

The lessee must have in cultivation at the end of three years 5 per cent and at the end of five years 10 per cent of his holdings, and maintain on agricultural land an average of ten trees to the acre.

Pastoral land must be fenced.

Interest in right of purchase lease is not assignable without written consent of the commissioner of public lands, but the lease may be surrendered to the government.

In case of forfeiture or surrender of right of purchase lease, reappraisal is made of the land and of permanent improvements thereon, and if the land is again disposed of, the incoming tenant shall pay for such permanent improvements and the amount when so received by the government shall be paid to the surrendering lessee.

CONDITIONS UNDER WHICH PURCHASE MAY BE MADE.

At any time after third year of leasehold term, the lessee is entitled to a land patent giving fee simple title, upon his payment of the appraised value set forth in lease, if he has reduced to cultivation 25 per cent of his leased premises and has substantially performed all other conditions of his lease.

CASH FREEHOLDS.

Cash freehold lots are sold at auction to the highest qualified bidder, at appraised value as upset price.

The qualifications of applicant for cash freeholds and the areas of land which may be acquired are the same as those under right-of-purchase system.

APPLICATIONS.

Applications must be made to subagent of district in writing, with sworn declaration as to qualifications and a fee of 10 per cent of appraised value of lot, which fee is forfeited if applicant declines to take the premises at the appraised value, and is credited to him if he becomes the purchaser of the lot. If such applicant, however, is outbid, his fee is returned to him.

If two or more applications are made and there is no bid above the upset price, the first application takes precedence.

The purchaser at auction sale must pay immediately thereafter one-fourth of purchase price and thereupon receive a "freehold agreement."

CONDITIONS OF FREEHOLD AGREEMENT.

The freeholder shall pay the balance of purchase price in equal installments in one, two, and three years, with interest at 6 per cent, but may pay any installment before it is due, and stop corresponding interest.

Twenty-five per cent of agricultural land must be cultivated and pastoral fenced before the end of third year.

Freeholder must maintain his home on the premises from end of first to end of third year.

He may not assign or sublet without consent of the commissioner of public lands.

He must allow agents of the Territory of Hawaii and the United States to enter and examine the premises.

He must pay all taxes that may be due upon the premises.

If all conditions are fulfilled, he is entitled at end of three years to patent giving fee-simple title.

In case of forfeiture or surrender, the land and permanent improvements are reappraised separately, and the value of such improvements, when received by government from new tenant or freeholder, will be paid to surrendering freeholder.

SETTLEMENT ASSOCIATIONS.

Six or more qualified persons may form a "settlement association" and apply for holding in one block.

The provisions for cash freehold and right-of-purchase leases apply to the settlement of such blocks.

Any lot in such block which may be forfeited or surrendered or which is not taken up by any member of the settlement association within three months, shall be open to any qualified applicants.

Disputes, disagreements, or misunderstandings between the parties to certificate of occupation, homestead lease, right-of-purchase lease, or cash freehold and relating thereto which can not be amicably settled shall be submitted to the circuit judge in whose jurisdiction the premises are situated, and his decision shall be final, subject only to appeal to supreme court.

CASH SALES AND SPECIAL AGREEMENTS.

With consent of the governor public lands not under lease may be sold in parcels of not over 1,000 acres at public auction for cash, and upon such sale and payment of full consideration a land patent will issue.

Parcels of land of not over 600 acres may, with consent of governor, be sold at public auction upon part credit and part cash, and upon such terms and conditions of improvement, residence, etc., as may be imposed.

Upon fulfillment of all conditions a land patent will issue.

GENERAL LEASES.

General leases of public lands may be made for a term not exceeding five years for agricultural land and twenty-one years for pastoral land.

Such leases are sold at public auction and require rent in advance quarterly, semi-annually, or annually.

The conditions of general leases are made at discretion of the commissioner and may be made for any class of public lands.

The Crown-land leases in many cases were evidently used for political or other purposes. Large tracts of valuable land were and are to-day under lease at mere nominal rentals, such as no sane person would accept as the actual rental of the land. As an example, 500 acres of land in and adjoining the city of Honolulu is under lease to expire in 1912. The Crown received and the government now receives for this land the sum of \$100 per annum. The lessee sublets the land at an annual net profit of about \$12,000 per annum. There are 2,800 acres on Kauai for which the government receives \$800 per annum that clear the lessee \$10,000 per annum net. This man is a nonresident and subleases. Many other instances of like kind exist.

The following, taken from the 1894 report of C. P. Iaukea, the former Crown commissioner, shows how little business capacity was used in leasing these Crown lands:

By reference to the rent roll it will be seen that many of the lands, more particularly the valuable ones, are held for long terms of years, and in a number of instances the rentals, compared with the present market or ruling rates, are exceedingly low. The following statement will illustrate this:

Name of tract.	Locality.	Area.	Annual rental.	Remarks.
Kapapala	Kau	172, 780	\$1, 200. 00	Excellent grazing land.
Waiohinu .....	.....	15, 210	600. 00	150 acres cane with valuable water springs.
Waiakea	Hilo	95, 000	2, 000. 00	3,000 acres cane; good coffee land.
Hunua	do	101, 000	1, 000. 00	500 acres cane.
Honokaa	Hamakua	5, 186	305. 00	800 acres cane.
Auwaiolimu	Honolulu	500	100. 00	Valuable town lots.
Waimanalo	Koolau	6, 500	1, 500. 00	1,200 acres cane.
Lualualei	Waianae	14, 772	700. 00	500 acres cane.
Kapaa and Anahola	Kauai	13, 474	600. 00	1,700 acres cane.
Total		424, 422	8, 005. 00	Area cane land, 7,850 acres.

The above figures show that of a total acreage of 424,422 (nearly one-half the whole area of the Crown lands) the rental per acre averages less than 2 cents. These tracts comprise a very valuable proportion of some of the choicest lands in the country, and include upward of 7,800 acres cane land now actually under cultivation, besides a very large area suitable for coffee and other tropical products.

The unfortunate part, to the present generation, of this matter is that a large majority of these leases are still in existence and have many years to run. The Republic of Hawaii, by its laws, merged the Crown and Government lands under the head and title of public lands, and placed their control in the hands of a commission of three.

THE LAND OFFICE.

The Fifty-sixth Congress, in an act to provide a government for the Territory of Hawaii, provided that the commission of three be done away with and a commissioner be appointed by the governor of Hawaii to conduct the affairs of the land department. He is responsible for the administration of the land law. His salary is \$3,600 per annum.

The following comprise the staff of the commissioner:

On the Island of Oahu, 1 secretary, subagent and bookkeeper; 1 patent clerk and 1 clerk.

On the Island of Hawaii, 2 subagents and 2 rangers.

For the islands of Maui, Molokai, Lanai, and Kahoolawe, 1 subagent, and the Island of Kauai, 1 subagent, making a total of 9 regular employees.

SETTLEMENT.

Since taking office on December 1, 1903, it was found the old system of handling lands and the revenues therefrom was entirely inadequate. Aiming to prevent fraud in the handling of the lands, and the possibility of shortages in the revenues from the lands, an entirely new method of accounting for the revenues and listing lands was established. Public lands of greater or less area for the production of sisal, coffee, bananas, pineapples, vanilla beans, etc., are available for settlement on any of the larger islands. Although there are many difficulties to be met with by the settler, still a man of energy and perseverance with small means can probably overcome them. One of the most important difficulties is transportation, but in certain industries this is not so great. Inspection of public lands by prospective settlers is invited and solicited. It is advisable for any colony or body of men to delegate one or two trustworthy members to visit and report on the lands before the main body moves in the matter. It is my intention, with the proper approval, to cut up and offer for settlement every piece of arable land fit to put a settler on as fast as the leases expire. That in following this plan there will be opposition is a certainty, but in the firm belief that this is the only way to increase the citizen population and the wealth, prosperity, and productiveness of the Territory this policy will be maintained.

Lands that are not fit for settlement in small holdings, but which capital may make productive to some certain extent, should be sold outright instead of being allowed to lie idle for another one hundred years.

By the treaty of annexation the title to all public lands is vested in the United States Government, but by the same treaty the use and benefit derived from these lands remain with the people of the Territory. In other words, the Territorial government practically holds the lands in trust and the revenue from the rental of the lands forms a considerable part of the government revenue, while proceeds from the sale of the lands must by law go to liquidate the bonded indebtedness of the Territory.

By referring to the list of patents issued during the past year it will be seen that the first one under the present administration was No. 4782, and following this number there are but five patents on land exchanges. These patents were issued to consummate transactions and agreements made by the previous administration and which had reached such a stage that it was impossible to withdraw them. The numbers of these patents on exchange are as follows: 4793, 4804, 4819, 4820, and 4827.

WATER LICENSE ISSUED.

A reference to the list of general leases issued during the year ending June 30, 1904, shows that the first lease or license issued by the present administration was that to the Kohala-Hamakua Ditch Company. This license was sold at public auction at the judiciary building, Honolulu, March 12, 1904. It allows the licensee to go upon the lands of the government lying between Waipio Gulch and the Honokane-Awini boundary, and between the sea and the 4,200-foot contour line, and conserving and conducting therefrom all the running natural surface water. This water will be taken out and used upon the arable lands of the Kohala district, and the assurance of an abundant and constant supply will undoubtedly cause the people of that section to generally increase their area under cultivation. It will also greatly increase the yield of those lands already being tilled.

The section from which this water is to be taken is one of the roughest and wildest coast sections of the Hawaiian Islands. Its only value is in its abundant water supply, and up to the present this water has run to waste into the sea.

Attention is also called to the increased revenues received by the present administration for lands leased, and also to the fact that all leases for a longer term than five years contain the following special conditions:

And it is further agreed and understood by and between the parties hereto that should at any time during the term hereof part or parts of the herein-demised premises become susceptible of agricultural purposes or be required by the lessor for road or other public uses, the said lessor may reassume and take possession of such part or parts, the same thereupon to be reserved from and cease to be subject to the covenants and conditions of this lease; it being expressly agreed, however, that the said lessor shall be the sole and exclusive judge of the susceptibility of any and all parts of said premises for agricultural purposes and upon the event of the resumption of possession thereof by the lessor for that reason the rent herein reserved shall thereupon be reduced in the proportion that such part or parts bear to the whole.

EMBEZZLEMENTS.

The manner in which the business of this department was conducted previous to my assuming office is shown by these facts:

According to the books the following amounts were due the government on land transactions:

Rents from general leases	\$44,698.95
Interest on right of purchase and homestead leases and special agreements	21,635.50
On purchase price of lands	4,484.05
Making a total of	70,818.50
Close investigation showed that of this amount sums had been collected and embezzled to the extent of	27,234.00
Leaving a balance actually due of	43,584.50

To the amount embezzled should be added about \$5,000 in fees and commutations. The exact amount has not been ascertained as yet, but the old books are now in the hands of the auditor and will soon be known. The embezzlers are under arrest.

It was also found that the patents had been issued in very many cases where the patentee had undoubtedly failed to fulfill conditions, and as this fact was known to other settlers it has caused endless trouble, because the government is now charged with discrimination.

One clause of our law states that the patent shall issue if the conditions have been "substantially performed." This wording has been bent and twisted to meet the will of the subagent and the commissioner until, in many cases, it was apparently clear to them that the "conditions had been substantially performed," when as a matter of fact the patentee never saw his land.

As very valuable lands are placed in the hands of settlers at exceedingly low figures, it is the intention of the present administration to insist upon having the conditions actually performed, trusting to decisions of the United States courts in like cases for guidance. This will create trouble for a short time only, as it will soon be understood that there are two parties to each contract, and that an honest attempt on the part of the settler will meet with prompt recognition on the part of the government.

The public lands of the Territory of Hawaii comprise about 1,720,000 acres. Of this total there are some 500,000 acres which may be classed as barren, owing to the fact that they are rugged and inaccessible mountain tracts, hopeless in the extreme as homesteads. Under the classification of grazing or forest lands there are included 1,000,000 acres, leaving, according to the present division, only about 220,000 acres of so-called first-class agricultural land. Of this there are 25,000 acres which are classed as kula or rice and taro lands and sugar lands. This is not a close classification, for of the million acres of forest lands experience has shown that probably 10 per cent are as highly productive as any of the lower areas.

The higher lands—those which have heretofore been known only as cattle lands, and more recently as forest reserves—are now being made more easy of access through the building of roads where formerly only trails were used, and the value of the acreage will increase in proportion as they are opened. The lands are often so situated that cultivation will make them as great conservers of rainfalls as if they were kept in forests, and thus there is a consequent prospect that the near future will see many hundreds of acres added to the arable areas.

Among the lands classed as agricultural there are acres which are in close contiguity to sugar plantations, and some of these are not available for general agriculture, except where special arrangements have been made with the plantation for the use of water for irrigating purposes. The expense of putting water upon the dry lands is heavy, and this precludes any other than action in concert, or through large corporations which are able to put hundreds of thousands of dollars into pumps and pipe lines.

The average price of sugar lands from private owners is from \$25 to \$60 an acre, but from the government to homesteaders the average is \$10 to \$15. Coffee lands range from \$10 to \$15 an acre under homestead agreement. Grazing lands run from \$1.25 upward.

The land laws of Hawaii can be amended by Congress only, and there have been no changes made since annexation. At present the land office is checking and verifying the various lists of public lands, "taking stock" as it were. When completed there will be accurate lists of the lands, showing the use to which they may be adapted, their situation, area, and value. It is believed that the public lands of Hawaii have heretofore been listed at from 20 to 50 per cent of their value.

Receipts of the public lands department for the year ending June 30, 1904.

LAND REVENUE.

Rents:		
General leases	.....	\$112,543.81
Right of purchase leases	.....	8,230.40
Olaa leases	.....	726.34
Kaimu leases	.....	14.48
Puukapu leases	.....	34.91
Miscellaneous	.....	1,248.00
Interest:		
Homesteads	.....	309.10
Special agreements	.....	659.72
Cash freeholds	.....	50.18
Olaa lots	.....	84.30
Office fees	.....	314.80
Patent fees	.....	195.00
		<hr/> \$124,411.04

LAND SALES.

Purchase right of purchase leases	.....	14,133.99
Special agreements	.....	2,735.20
Homesteads	.....	946.17
Cash freeholds	.....	652.48
Olaa lots	.....	405.23
Cash sales	.....	60.00
Kaimu and Waiakolea	.....	29.35
		<hr/> 18,962.42
Total	.....	<hr/>143,373.46

Land patents issued during the year ending June 30, 1904.

Patent No.	Date issued.	Patentee.	Area.	Location.	Consideration.	Remarks.
4731	1903. July 1	W. C. Achi.....acres..	4.166	Honomalinea, S. Kona, Hawaii.	\$1.00	Land exchange.
4732	.....do....	Maria Vieira Silva.....do....	81.18	Waikamalo, Hilo, Hawaii.	811.80	Right of purchase lease.
4733	July 14	F. W. Barbour.....do....	17.09	Kaiwili, Hilo, Hawaii.	136.72	Do.
4734	.....do....	Antonio de S. da Costa, acres.	27.77	Waikamalo, Hilo, Hawaii.	445.50	Do.
4735	.....do....	Joaquin A. Silva.....acres..	18.10	.....do.....	271.50	Do.
4736	.....do....	Hee Akou.....do.....	17.13	Puukapu, S. Kohala, Hawaii.	85.65	Do.
4738	Aug. 10	Manuel Enos Tavash, acres.	14.7	Kaiwili, Hilo, Hawaii.	118.80	Do.
4739	.....do....	G. F. Affonso.....acres..	18.7	.....do.....	149.20	Do.
4740	Aug. 19	John Kane.....do.....	13.93	Nanawale, Puna, Hawaii.	170.81	Homesteads.
4741	Aug. 21	Martin Campbell.....do....	13.28	Puukapu, S. Kohala, Hawaii.	33.20	Cash freeholds
4742	Aug. 21	John K. Peterson.....do....	100	Olaa, Puna, Hawaii.	600.00	Right of purchase lease.
4743	Aug. 27	Maj. E. Davis.....do....	.52	Tantalus Heights, Kona, Oahu.	1.00	Land exchange.
4744	.....do....	A. Enos.....do.....	20.24	Waipunalet, Hilo, Hawaii.	242.88	Homesteads.

Land patents issued during the year ending June 30, 1904—Continued.

Patent No.	Date Issued.	Patentee.	Area.	Location.	Consideration.	Remarks.
4746	1903. Aug. 27	Alfred Fielding...acres..	16.4	Kaiwiki, Hilo, Hawaii.	\$132.72	Right of purchase lease.
4746	Sept. 4	Manuel Soares ....do....	6.3	.....do.....	52.28	Do.
4747	.....do....	Jacintho Carreta ..do....	5.7	.....do.....	52.28	Do.
4748	.....do....	Mrs. Kini Koukoulia, acres.	11.84	Puukapu, S. Kohala, Hawaii.	40.00	Do.
4749	Sept. 9	H. F. Wichman, square feet.	4,193	Waialeale, Koolau-poko, Oahu.	1.00	Landexchange.
4760	Sept. 14	Elena Kuluwaimaka, square feet.	33,798	Hanalei, Koolau-poko, Oahu.	1.00	Do.
4761	June 23	H. M. Von Holt...acres..	2,629	Lualualei, Waianae, Oahu.	1.00	Do.
4762	Sept. 21	Manuel Vierra ....do....	28	Ponahawai, Hilo, Hawaii.	224.00	Right of purchase lease.
4763	Sept. 28	P. E. Harkins ....do....	84.24	Kaohu, Puna, Hawaii.	591.15	Do.
4764	Oct. 5	J. A. Magoon, square feet.	3,044	Punchbowl St., Kona, Oahu.	502.90	Landexchange.
4765	Oct. 24	Ella Naone .....acres..	56.68	Waikamalo, Hilo, Hawaii.	900.00	Right of purchase lease.
4767	.....do....	Jose da Costa Morgada, acres.	23.4	Kaiwiki, Hilo, Hawaii.	187.20	Do.
4768	.....do....	Manuel M. Conca.acres..	21.4	Olau, Puna, Hawaii.	40.00	Do.
4769	Oct. 26	Michael Komorskey, acres.	99.16	.....do.....	597.48	Do.
4760	Oct. 28	H. M. Von Holt, square feet.	19,542	Iwilei, Honolulu, Oahu.	1.00	Landexchange.
4761	Oct. 30	R. K. Baptiste.....acres..	19.6	Kaiwiki, Hilo, Hawaii.	155.44	Time payment.
4762	.....do....	Geo. M. Deacon ....do....	82.98	Waikamalo, Hilo, Hawaii.	906.00	Right of purchase lease.
4763	.....do....	Antonio Ah Sin.....do....	17.12	Waikoa, Kula, Maui.	51.36	Do.
4764	.....do....	Francisco D. Aruda.....do....	9.02	Pulehuiki, Kula, Maui.	63.14	Do.
4765	.....do....	Manuel Mareira ....do....	6.95	.....do.....	38.99	Do.
4766	.....do....	Honda.....do.....	20.08	Waipunaiei, Hilo, Hawaii.	289.50	Homesteads.
4767	Oct. 31	Manuel Perera Martines, acres.	14.38	.....do.....	183.60	Right of purchase lease.
4768	.....do....	Manuel Perera Silva, acres.	18.09	.....do.....	176.70	Do.
4769	.....do....	H. Piper.....acres..	61.64	Kaohu, Puna, Hawaii.	369.24	Do.
4770	.....do....	Walter E. Shaw.....do....	110.76	Nahiku, Hana, Maui.	359.97	Do.
4771	Nov. 4	Germain Pacheco.....do....	14.86	Waipunaiei, Hilo, Hawaii.	157.50	Do.
4772	.....do....	S. Shimamoto.....do....	30.73	Olau, Puna, Hawaii.	92.94	Olau reservation.
4773	.....do....	Marria Carvalho.....do....	20.31	Ninole and Wailau, Kau, Hawaii.	121.86	Homesteads.
4774	.....do....	A. Grossi.....do....	11.1	Olau, Puna, Hawaii.	217.60	Right of purchase lease.
4775	Nov. 5	W. P. Thomas.....do....	.44	Wahiawa, Waialeale, Oahu.	1.00	Landexchange.
4776	.....do....	Samuel M. Damon.do....	742	Monanlua, Kona, Oahu.	122.30	Do.
4777	Nov. 10	T. Clive Davies.....do....	40	Waialeale, Hilo, Hawaii.	1.00	Do.
4778	Nov. 12	Maria Pavao.....do....	32.7	Ponahawai, Hilo, Hawaii.	345.00	Cash freeholds.
4779	.....do....	J. P. Fernandes.....do....	17	.....do.....	258.00	Do.
4780	Nov. 14	Joao Fernandes.....do....	68.46	Waikamalo, Hilo, Hawaii.	645.00	Right of purchase lease.
4781	Nov. 17	Bernice P. Bishop estate, square feet.	44,452	Waialeale, Hilo, Hawaii.	1.00	Landexchange.

COMMENCEMENT OF GOVERNOR CARTER'S ADMINISTRATION.

4782	Dec. 10	Andrew Chalmers.acres..	20	Kahuku, Hilo, Hawaii.	\$300.00	Homesteads.
4783	...do....	Yoseine Kami.....do....	19.71	Waipunaiei, Hilo, Hawaii.	283.50	Do.
4784	...do....	S. W. Kamoi.....do....	16.40	Nanawale, Puna, Hawaii.	164.00	Do.
4785	...do....	Mary An Hall.....do....	16.48	Ahualoa, Hamakua, Hawaii.	126.60	Do.
4786	...do....	Keawealani.....do....	19.74	Kealahou, N. Kona, Hawaii.	148.00	Do.
4787	...do....	J. Mokuaikei.....do....	25.45	Kohanaiki, N. Kona, Hawaii.	92.00	Do.

Land patents issued during the year ending June 30, 1904—Continued.

COMMENCEMENT OF GOVERNOR CARTER'S ADMINISTRATION—Continued.

Patent No.	Date issued.	Patentee.	Area.	Location.	Consideration.	Remarks.
4788	1904. Jan. 15	Joseph Viera	acres.. 17.36	Waikauamalo, Hilo, Hawaii.	\$260.40	Right of purchase lease.
4789	...do....	John R. Gaspar.....do....	52	Kaiwiki, Hilo, Hawaii.	416.00	Do.
4790	...do....	Antonio Jesus.....do....	17	Ahualoa, Hamakua, Hawaii.	127.50	Homesteads.
4791	...do....	Antonio Cordeiro.....do....	16.50	...do....	123.75	Do.
4792	...do....	Mrs. Kalli Ikaaka.....do....	18.02	Ninole and Wallau, Kau, Hawaii.	108.12	Do.
4793	Feb. 24	Bernice P. Bishop estate, square feet.	8,175	Keakaui, Kona, Oahu.	1.00	Landexchange.
4794	Mar. 29	Jose Muniz Medeiros, acres.	31.2	Pauulo, Hamakua, Hawaii.	312.00	Right of purchase lease.
4795	...do....	Otto Medeiros.....acres..	70.91	Niupaa, Hamakua, Hawaii.	709.10	Do.
4796	...do....	John K. Lanakila.....do....	20.68	Puukapu-Waimea, S. Kohala, Hawaii.	51.70	Cash freeholds.
4797	...do....	Paulo.....do....	21.68	...do....	54.20	Right of purchase lease.
4798	...do....	D. W. K. Waiwai.....do....	27.4	Kupahua, Puna, Hawaii.	42.00	Time payment.
4799	...do....	Mrs. E. N. Low.....do....	18.07	Punahanulu, N. Kona, Hawaii.	45.00	Do.
4800	Apr. 4	Charlotte Kaohu.....do....	10.57	Waipunalet, Hilo, Hawaii.	122.28	Right of purchase lease.
4801	...do....	Jose G. Serrao.....do....	82.8	Ponahawai, Hilo, Hawaii.	82.80	Cash freeholds.
4802	...do....	Maikui.....do....	15.89	Niupaa, Hamakua, Hawaii.	158.90	Right of purchase lease.
4803	...do....	Joe Gomez.....do....	20.10	Pauulo, Hamakua, Hawaii.	200.00	Do.
4804	May 2	H. M. Von Holt.....sq. ft..	32,200	Kuwili, Kona, Oahu	1.00	Landexchange.
4805	May 16	Manuel Peicato.....acres..	17.3	Waikauamalo, Hilo, Hawaii.	259.50	Right of purchase lease.
4806	...do....	B. H. Brown.....do....	28.5	Olaa, Puna, Hawaii.	170.40	Olaa reservation.
4807	...do....	Wm. B. Nailima, sr. do....	26.85	...do....	161.10	Do.
4808	...do....	Julho Furtado.....do....	6.65	Kaauhuhu, N. Kohala, Hawaii.	20.00	Time payment.
4809	...do....	C. L. Kimokeo.....do....	6.6	...do....	41.00	Do.
4810	...do....	Manuel G. Clement.....do....	18	...do....	52.00	Do.
4811	...do....	Robert Laing.....do....	21.23	...do....	160.00	Do.
4812	...do....	Mary Anderson.....do....	18.31	...do....	105.00	Do.
4813	...do....	Frank Cactano.....do....	12.80	...do....	39.00	Do.
4814	...do....	Joao de Franca.....do....	10	...do....	31.00	Do.
4815	...do....	John de Nevas.....do....	14.08	...do....	43.00	Do.
4816	...do....	Manuel Duarte Martines, acres.	12.1	...do....	37.00	Do.
4817	...do....	Manuel Assencao.....acres..	12.10	...do....	47.00	Do.
4818	May 18	Peter R. Nelson.....do....	11.25	...do....	43.00	Do.
4819	...do....	John K. Naone.....sq. ft..	512	Kalokohou, Pauoa, Kona, Oahu.	1.00	Land exchange.
4820	...do....	C. B. Maile.....do....	2,700	Kawaiiki, Kapalama, Kona, Oahu.	10.20	Do.
4821	June 20	Iokua Maluo.....acres..	31.69	Waikauamalo, Hilo, Hawaii.	373.50	Right of purchase lease.
4822	...do....	Mary K. Nailima.....do....	15.6	Olaa, Puna, Hawaii	284.00	Do.
4823	...do....	Charles Elderts.....do....	32	...do....	243.05	Do.
4824	...do....	D. Moku.....do....	10.57	...do....	25.42	Cash freeholds.
4825	...do....	Kalawa.....do....	14.7	Kaauhuhu, N. Kohala, Hawaii.	45.00	Time payment.
4826	...do....	Antone C. de Souza, acres.	27.64	...do....	83.00	Do.
4827	June 25	Kalaeloa.....sq. ft..	1,647	Hauhaui, Kona, Oahu.	1.00	Land exchange.
Grand total.....acres..					9,785.42	17,839.86

Land exchanges.

Districts.	No.	Area.
First land district.....	2	<i>Acres.</i> 41.02
Second land district.....	1	4,166
Third land district.....	13	3,374.36
Fourth land district.....		
Fifth land district.....		
Total.....	16	7,581.38

SUMMARY, NOT INCLUDING EXCHANGES.

	Area.	Consideration.	Average per acre.
	<i>Acres.</i>		
Right-of-purchase lease.....	1,443.54	\$12,683.86	\$8.80
Homesteads.....	329.94	2,723.04	8.20
Time payment.....	253.53	988.44	3.10
Cash freeholds.....	177.03	796.12	4.40
Total.....	2,204.04	17,191.46	7.80

Land patents issued on land commission award during the year ending June 30, 1904.

Patent No.	Area.	Patentee.	Location.
8156....	203 fathoms.....	Hewahewa.....	Keopu 3, Kona, Hawaii.
8157....	56.8 acres.....	A. Kelliahonui.....	Iwilei, Kona, Oahu.
8158....	1.35 acres.....	Paukeaho.....	Keanulomano, Waimea, Kohala, Hawaii.
8159....	1.8 acres.....	Koaniani.....	Waipilopilo, Hauula, Oahu.
8160....	5,000 square feet.....	Kaaliwaawa.....	Kolulu, Honolulu, Oahu.
8161....	540.4 acres.....	W. P. Lelelohoku.....	Puanui, Kohala, Hawaii.
8162....	1,092 acres.....	M. Kekauonohi.....	Moakea, Molokai.
8163....	537 acres.....	Hinaiu.....	Keawanui, Molokai.
8164....	52.2 acres.....	Kahonu.....	Kahua 2, Hilo, Hawaii.
8165....	2,184.44 acres.....	W. C. Lunaillo.....	Kapahulu, Waikiki, Kona, Oahu.

Lands taken under general provisions of the land act of 1895.

[Other than cash sales and Olaa purchases under special conditions of Part IX.]

	Right of purchase lease.			Cash freehold.			Special agreement.			Home- stead.	
	No.	Acres.	Value.	No.	Acres.	Value.	No.	Acres.	Value.	No.	Acres.
1. Hilo and Puna....	47	2,801.22	\$19,078.34	3	30.88	\$87.95				3	43.78
2. Hamakua and Kohala.....	3	211.93	740.47								
3. Kona and Kau....	25	2,478.53	4,402.91	1	768	2,050.00				13	101.80
4. Mauland Molokai							1	360	\$1,440.00		
5. Oahu.....										7	21.16
Total.....	75	5,491.68	24,221.72	4	798.88	2,137.95	1	360	1,440.00	23	166.74

SUMMARY OF ABOVE.

	No.	Acres.	Value.
Right of purchase lease.....	75	5,491.68	\$24,221.72
Cash freehold.....	4	798.88	2,137.95
Special agreement.....	1	360	1,440.00
Homestead lease.....	23	166.74	
Total.....	103	6,817.30	27,799.67

Statement of expenditures for the year ending June 30, 1904.

Item.	Appropriation.	Drawn.	Balance.
Commissioner	\$5,400.00	\$1,800.00	\$3,600.00
Secretary and subagent, fifth district	3,150.00	987.90	2,162.10
Clerk and bookkeeper	2,700.00	900.00	1,800.00
Patent clerk	1,800.00	600.00	1,200.00
Typewriter and copyist	900.00	300.00	600.00
Subagent:			
First land district	1,800.00	600.00	1,200.00
Second land district	900.00	50.00	850.00
Third land district	720.00	240.00	480.00
Fourth land district	900.00	300.00	600.00
Sixth land district	540.00	90.00	450.00
Ranger, first land district	900.00	200.00	700.00
Clerk, first land district	720.00		720.00
Ranger:			
Second land district	540.00	120.00	420.00
Third land district	900.00	200.00	700.00
Fourth land district	540.00	60.00	480.00
Fifth land district	540.00	60.00	480.00
Sixth land district	360.00		360.00
Office incidentals, etc	2,400.00	1,277.78	1,122.22
Printing and advertising	3,000.00	540.61	2,459.39
Purchase of books	875.00	22.50	852.50
Appraiser's fees	225.00	6.00	219.00
Preliminary roads and trails	5,250.00		5,250.00
Expenses filing boundary certificates	375.00	25.00	350.00
Survey works class, public lands	2,500.00		2,500.00
Total	37,435.00	8,379.79	29,055.21

General leases issued during the year ending June 30, 1904.

Date of lease.	Name of lessee.	Location of land.	Class of land.	Area.	Term of lease.	Annual rental.	Former rental.
1903.				<i>Acres.</i>	<i>Years.</i>		
Nov. 17	Hutchinson Sugar Co.	Kau, Hawaii.....	Right of way for water pipe.	.....	30	\$20.00	.....
Oct. 15	John Broad.....	Kona, Hawaii	Various remnants, pastoral.	Uncertain.	(a)	30.00	.....
Nov. 7	Chew Wo Chong Co.	Pauoa, Oahu.....	Taro, agricultural	1.95	5	220.00	.....
Dec. 12	Hamakua Mill Co.	Hamakua, Hawaii	Cane and pastoral	80	5	200.00	.....
Dec. 12	.....do .....	.....do .....	.....do	185	5	462.50	.....

COMMENCEMENT OF GOVERNOR CARTER'S ADMINISTRATION.

1904.							
Mar. 12	J. S. Low	Kohala, Hamakua	Water right.....	.....	50	\$1,000.00	.....
Apr. 1	Mrs. J. K. Iaukea.	Kaneohe, Oahu...	Fish pond and kula.	6.25	10	185.00	\$50.00
Apr. 26	Wailuku Sugar Co.	Waiahu, Maui ...	Cane and kula....	75.01	5	220.00	100.00
Apr. 23	Hawaiian Agricultural Co.	Kau, Hawaii.....	.....do	186	5	600.00	250.00
Apr. 23	Wing Sing Lee Co.	Manoa, Oahu.....	Taro and kula....	6.51	5	175.00	100.00
Apr. 26	American Sugar Co.	Hoolehua, Molokai.	Pastoral	3,786	14	440.00	.....
May 7	L. K. Kentwell..	Hauula, Oahu ...	Rice and kula....	15.94	5	330.00	200.00
June 2	Chas. Gay	Kalulu, Lanai ...	Pastoral	5,000	21	600.00	150.00
June 2	A. C. Lovekin ...	Necker Island ...	Fishing purposes.	46.50	21	25.00	.....
June 18	Lam Wo Sing....	Waikiki, Oahu...	Rice	49.29	5	1,550.00	750.00

^a T. W. thirty days' notice.^b And 1 per cent gross revenue.

SUMMARY OF ABOVE.

General leases:		
Number.....		15
Acres		9,888.45
Annual rental		\$6,007.50

"CROWN LANDS" OF THE TERRITORY.

The following is a brief description of the lands formerly known as "Crown lands," but now a part of the public lands of the Territory. This list does not include those portions now under control of the superintendent of public works. The values given are approximate only, as in many cases the proper area is very doubtful and can only be correctly stated after a complete survey and location of kuleanas has been made.

The total area given below is 905,798.15 acres, and the total value of this land is placed at \$8,098,175. This is believed to be a fair valuation of the lands, unincumbered.

ISLAND OF OAHU.

DISTRICT OF KONA.

Kuwili.—Area, 17.80 acres; value, \$10,000. Fish pond and rice lands, situate on seashore at Kapalama. This property is under lease to Chin Wo Company at \$285 per annum. Date of lease, January 1, 1902; lease expires January 1, 1907.

Kapaloa.—Area, 6.55 acres; value, \$5,000. Taro land, situate in Pauoa Valley. Under lease to Kwong Ak In Company and Chew Wo Company at \$380 per annum. Date of leases, May 12, 1891, and November 7, 1903; leases expire April 1, 1906, and July, 1909.

Hamama—Piliamoo—Kauamoa—Puahia.—Area, 66.07 acres; value, \$20,000. Taro land, situate in Manoa Valley. Under lease to Kapiolani estate at \$220 per annum. Date of lease, July 1, 1882; lease to expire July 1, 1912.

Kahaumakaawe.—Area, about 6.50 acres; value, \$3,000. Taro land, situate in Manoa Valley. Under lease to Wing Sing Lee Company at \$175 per annum. Date of lease, April 23, 1904; lease to expire May 1, 1909.

Haleleua.—Area unknown. A small remnant of taro land in Manoa Valley.

Mookahi, 1 and 2.—Area, about 6 acres; value, \$3,000. Rice or banana land, above the Waikiki road and east of the Pau land. Of this land 1.46 acres is under lease to Kwong Sing Company at \$60 per annum. Lease dated April 11, 1899; expires March 5, 1915.

Kahalauwahine—Kaluaoalohe—Kualawai—Kaloiki—One-half Pawa.—These are small remnants, and their exact location and area have apparently never been fixed.

Kaneloa (part).—Area, 15.70 acres; value, \$9,000. Rice land, adjoining west boundary of Kapiolani Park. Under lease to Lam Wo Sing at \$545 per annum. Lease dated March 7, 1903, and to expire March 7, 1908.

Waiomao and Pukele.—Area, about 946.75 acres; value, \$30,000. Small portion taro land, but mostly grazing land, situate in Palolo Valley. The lease on this land having expired, it is the present intention to cut the land up and open it up for settlement.

DISTRICT OF EWA.

Waikakalaua, Ohua.—About 678 acres grazing land, value \$13,000, situate on the uplands north of Pearl Harbor.

Pouhala (one-half).—Eight hundred and ten acres agricultural grazing land, value \$22,000, together with a few acres of fish pond, are situate at or near to Pearl Harbor, and are at present held under lease No. 68 to Dowsett estate, this being same lease that covers lands of Waianae-uka, the large United States military reservation. This lease is dated January 14, 1882, and expires January 14, 1912.

Weloka.—A fish pond of 21 acres, value \$10,000, adjoining the east side of Pearl City peninsula.

Puukahua.—Five acres of rice land, value \$2,500, on the peninsula adjoining the fish pond, are under lease to Mrs. Mary D. Frear at \$100 per annum. This lease is dated July 1, 1888, and expires July 1, 1918.

Homokawailani and Kauhikau.—These are several pieces of rice and kula land, value \$5,000, containing an area of about 11.50 acres, on and near the middle loch of Pearl Harbor, and are under lease to Sing Chong & Co. at \$75 per annum. Lease dated January 1, 1889, and expires January 1, 1909.

Aiea.—About 1,170 acres of rice, cane, and pasture land, value \$90,000, running back about 4 miles from the east loch of Pearl Harbor, and having an average width of about one-third of a mile. Is under lease to the Dowsett estate at \$250 per annum. Lease dated January 14, 1882, and expires January 1, 1912.

Waianae-kai.—Six thousand one hundred and forty-three acres of cane, taro, coffee, kula, and mountain land, site of the Waianae sugar plantation, on west coast of Oahu, about 35 miles from Honolulu. Has about 2 miles of coast line and extends back about 5 miles to crest of Waianae Mountains. Value, about \$300,000. Is under lease to Waianae Company at \$1,200 per annum. Lease dated September 11, 1879, and expires July 1, 1909.

Waianae-uka.—Fourteen thousand six hundred and seventy-eight acres of kula and mountain land, inland, about 20 miles west of Honolulu. This land has been reserved for military purposes, otherwise we could quickly settle a large proportion as soon as the lease expires, it being, to a considerable extent, excellent agricultural land. Value, about \$100,000. Is under lease to Dowsett estate at (with other lands) \$500 per annum. Lease dated January 14, 1882, and expires January 14, 1912.

Keaau.—Two thousand four hundred and thirty-one acres of kula and mountain land, on the coast about 40 miles northwest of Honolulu. Has about 2 miles of coast line and extends back about 3 miles to crest of mountains. Value, about \$12,000. Not under lease.

Lualualei.—About 8,000 acres of cane, kula, and mountain land, on coast about 32 miles northwest of Honolulu. Has about 6 miles of coast line and extends about 7 miles inland to crest of Waianae range. Original area about 15,000 acres, of which about 7,000 acres of the best land has been sold from the center of the tract. Value, about \$275,000. Three thousand three hundred and thirty-two acres under lease to Waianae Company at \$9,000 per annum. Lease dated December 1, 1901, and expires December 1, 1906.

Nanakuli.—About 3,431 acres of kula and mountain land, about 29 miles northwest of Honolulu. Has about 1½ miles of coast line and extends about 4 miles inland to crest of mountains. Value, about \$20,000. Is under lease to Dowsett estate at \$570 per annum. Lease dated January 14, 1882, and expires February 28, 1912.

Kaneohe (Crown remnants).—Aggregate, 2,320.28 acres, in 19 separate pieces, and consists of all classes of land. Value, about \$100,000. There are seven leases on portions of this land, as follows: Five hundred and twenty-five acres to Kaneohe Ranch Company, at \$225 per annum; lease dated June 13, 1903, and expires June 13, 1913. Seventy-two and forty-two one-hundredths acres to Chang En Chong, at \$260 per annum; lease dated March 7, 1903, and expires March 7, 1913. Eight hundred and fifteen and thirty one-hundredths acres to J. P. Mendonca, at \$200 per annum; lease dated October 15, 1883, and expires October 15, 1913. Three hundred and forty-two acres to Heeia Agricultural Company, at \$300 per annum; lease dated April 14, 1893, and expires May 1, 1913. Sixty-seven and twenty-one one-hundredths acres to L. Ahlo, at \$500 per annum; lease dated January 14, 1891, and expires January 1, 1906. Six and twenty-five one-hundredths acres to Mrs. J. K. Iaukea, at \$135 per annum; lease dated April 1, 1904, and expires April 1, 1914. Three hundred and fifty-three acres to Kaneohe Ranch Company, at \$450 per annum; lease dated August 31, 1898, and expires July 1, 1920. This makes a total of 2,181.18 acres leased at \$2,070 per annum, and leaves 139.10 acres to be disposed of.

Waimanalo.—Six thousand nine hundred and seventy acres of cane, kula, and mountain land. Has about 6 miles of coast line on the northeast coast of Oahu and extends back to crest of mountains. Site of the Waimanalo sugar plantation. Value, about \$350,000. Is under lease to the Waimanalo Sugar Company at \$1,500 per annum. Lease dated November 22, 1890, and expires November 22, 1920.

Pupukea and Paumalu.—About 4,000 acres of pasture land, with a small proportion of arable land, situate on northwest coast of Oahu, about 70 miles from Honolulu by rail. Has about 5 miles of coast line and extends back to mountains. Value, about \$30,000. Has just been cut up into 18 lots of about 200 acres each for settlement. A forest reserve of about 400 acres is retained from the upper lands.

Hauula.—About 1,400 acres of beach, kula, and mountain land on the north coast of Oahu, about 30 miles from Honolulu. Has about 1 mile of coast line and extends back in a narrow valley about 4 miles. Not under lease. Value, about \$15,000.

ISLAND OF MAUI.

Lahaina.—About 60 acres of land and fish ponds, and consisting of many small patches and remnants in and about the town of Lahaina, remain of the Lahaina Crown lands. Value, about \$6,000.

Wahikuli.—Area, about 2,807 acres. Has about 1½ miles of coast frontage on west coast of Maui, just north of the town of Lahaina. Extends about 3 miles inland. Cane and grazing land. Value, about \$40,000. Under lease to the Pioneer Mill Company at \$700 per annum. Lease dated April 1, 1890, and to expire April 1, 1913.

Olowalu.—Area, about 6,025 acres. Has about 2½ miles of sea frontage and about 5 miles of depth to crest of mountains. Site of Olowalu Sugar Company. Good landing. Cane, grazing, and rough mountain land. Value, about \$75,000. Under lease to Olowalu Company at \$800 per annum. Lease dated October 5, 1875, and to expire July 1, 1908.

Ukumehame.—Area, about 11,000 acres. Has about 8 miles of sea frontage, including one very good landing. Extends inland about 6 miles to high elevation on mountains. Lower lands very dry and rocky; grazing. Upper lands, first-class grazing. Value, about \$40,000. Under lease to C. Brewer & Co. at \$250 per annum. Lease dated March 1, 1892, and to expire November 1, 1906.

Kealahou.—Area, 217 acres. In the Kula district, on the west slope of Haleakala. Elevation, about 3,000 feet. Main portion agricultural, balance grazing land. Value, \$5,000. Under lease to Joseph Lopez at \$100 per annum. Lease dated January 30, 1888, and to expire January 1, 1908.

Keokea and Waiohuli.—Area, about 17,000 acres. Has a frontage of about 2 miles on the west coast of East Maui, and extends up the slope of Haleakala about 12 miles to an elevation of 9,000 feet. About 5,000 acres arable land, the balance good grazing land. Value, \$200,000. Under lease to W. H. Cornwell (estate) at \$1,500 per annum. Lease dated January 12, 1891, and to expire January 1, 1911.

Waiohounu.—Area, 395 acres, about one-third of a mile wide, on the east coast of Maui; $2\frac{1}{2}$ miles deep. Good boat landing. A large proportion is good cane land, the balance grazing. Value, \$9,000. Under lease (T. W.) to Reciprocity Sugar Company at \$200 per annum.

Wailua.—Area, 300 acres. Very narrow at the sea, and about 2 miles deep. Value lies principally in its water supply, and is about \$5,000. Under lease (T. W.) to C. Brewer & Co. at \$60 per annum.

Honomanu.—Area, 3,260 acres.

Wailua, 1 and 2.—Area, 3,000 acres.

Keanea.—Area, 11,148 acres.

These three have about 7 miles of coast line on the northeast coast of Maui. Their principal value lies in their supply of water, which is used on large sugar plantations west of these lands. Value, \$50,000. Honomanu is under lease to the Hawaiian Commercial and Sugar Company at \$500 per annum; lease dated July 1, 1878, and to expire July 1, 1908. Of the 14,148 acres of Keanae and Wailua 1 and 2, 12,500 acres are under lease to H. P. Baldwin at \$1,100 per annum; lease dated February 26, 1902, and to expire February 26, 1923.

Polipoli.—Area, 75 acres, about 25 acres of which are cane land, the balance being grazing land. Inland, about 3 miles west of the town of Wailuku. Value, \$3,500. Under lease to the Wailuku Sugar Company at \$220 per annum; lease dated April 26, 1904, and to expire May 1, 1909.

Kahakuloa.—Area, 10,523 acres. Has about 8 miles of coast line on north coast of west Maui. Extends inland to a point about 4,500 feet elevation. A small proportion is arable, the large majority of the land being very rough and poor grazing land. The water supply is fairly good. No roads, and trails are impassable during very stormy weather. Value, about \$25,000. About 800 acres of this land is under lease to Wailuku Sugar Company at \$100 per annum; lease dated July 1, 1863, and to expire July 1, 1913.

Napili.—Area, 300 acres, about 9 miles northwest of the town of Lahaina. Mostly dry grazing. About 1,000 feet coast line and over 3 miles deep. Value, \$4,500. Under lease (T. W.) to H. P. Baldwin at \$275 per annum. He holds as T. W. for the one year allowed by law, his old lease for fifteen years having expired January 1, 1904.

Honokawai.—Area, 4,000 acres. Has coast line of about $2\frac{1}{2}$ miles on west coast of west Maui and extends inland for about $6\frac{1}{2}$ miles. Upper portion, rough grazing; lower portion, good cane land. Value, about \$65,000. Under lease to Pioneer Mill Company at \$750 per annum; lease dated April 1, 1890, and to expire April 1, 1912.

ISLAND OF MOLOKAI.

Kalamaula.—Area, about 6,747 acres. Has about $2\frac{1}{2}$ miles of frontage on south coast of Molokai and extends about 7 miles inland. Springs of fresh water at upper boundary; valuable fish pond and cocoanut grove at beach; balance dry grazing land. Value, \$35,000.

Kapaakea.—Area, about 2,178 acres. A long, narrow strip with about one-half mile of sea frontage and a depth of about 6 miles. Fish ponds at beach, but mostly dry grazing land. Value, \$7,500.

Palaau.—Area, about 11,250 acres. In three sections. Larger piece has about 7 miles of frontage on north coast; smaller piece has about 1 mile of frontage on south coast; remaining and smallest piece is inland. Nearly all dry grazing land. Value, \$35,000.

The above lands of Kalamaula, Kapaakea, and Palaau are under lease to the American Sugar Company (now a stock-raising concern) at \$1,200 per annum; lease dated February 10, 1888, and to expire January 1, 1918.

Ualapue.—Area, about 709 acres. A long, narrow strip, having about three-fourths of a mile frontage on southeast coast and extending about 3 miles inland to top of mountain range. Some good taro land and fish ponds on coast, balance grazing land. Value, about \$4,500. Grazing land is under lease to H. R. Hitchcock at \$210 per annum; lease dated August 31, 1898, and to expire September 1, 1919. Fish pond is under lease to A. C. Dowsett at \$55 per annum; lease dated January 1, 1896, and to expire January 4, 1911.

ISLAND OF LANAI.

Kamoku.—Area, about 8,000 acres. Good grazing land. Has about 3 miles of sea frontage, with a good harbor. Extends inland about 6 miles. Value, \$40,000.

Paomai.—Area, about 9,000 acres. Good grazing land. Has about $5\frac{1}{2}$ miles of sea frontage, including one fair landing. Extends inland over 6 miles. Value, \$37,000.

Kamoku and Paomai are under one lease to Charles Gay at \$500 per annum; lease dated December 19, 1890, and expires January 1, 1916.

ISLAND OF KAUAI.

Kalaheo.—About 4,000 acres of cane, kula, and mountain land, having about 2 miles of coast line on south coast of Kauai, and extending back to mountains. Under lease to McBryde Sugar Company, at \$300 per annum. Lease dated February 15, 1859, and expires February 15, 1909. Value, \$150,000.

Hanapepe.—About 8,000 acres of cane, rice, and kula land, having about $3\frac{1}{2}$ miles of coast line (embracing Hanapepe Bay) on south coast of Kauai. Very valuable water rights. Under lease to Hawaiian Sugar Company, at \$1,000 per annum. Lease dated December 27, 1887, and expires December 27, 1917. Value, \$350,000.

Waimea.—About 92,000 acres of cane, rice, kula, and wood land, having about 25 miles of coast line on west coast of Kauai. Very valuable water rights. Value, \$2,000,000. Two leases, as follows: To Gay and Robinson, the Ahupuaa of Waimea, at \$1,300 per annum. Lease dated December 27, 1887, and expires December 27, 1917. To V. Knudsen, the Ahupuaas of Kekaha, Pokii, Waiawa, Mokihana, Milolii, Nuololo, and Mana, at \$4,000 per annum. Lease dated June 1, 1890, and expires June 1, 1920.

Hanalei.—About 16,000 acres of rice, kula, and mountain land, having about 4 miles of coast line on north coast of Kauai. Valuable water supply and large forest reserve. Value, \$100,000. Lease expiring, this land is being cut up into homesteads and grazing tracts.

Anahola and Kapua.—About 13,400 acres of rice, sugar, kula, and mountain forest land. Occupies 5 miles of the east coast line of Kauai, including Anahola Harbor. Under lease to Makee Sugar Company, at \$600 per annum. Lease dated May 1, 1877, and expires May 1, 1907. Value, \$400,000.

Wailua.—About 20,255 acres of rice, sugar, kula, and mountain forest land, with very large and valuable supply of water. Occupies about 5 miles of east coast of Kauai. Known and leased as Wailua-uka and Wailua-kai.

Wailua-uka.—Area, 17,455 acres; leased to Lihue Plantation, at \$1,200 per annum. Lease dated October 1, 1887, and to expire October 1, 1916.

Wailua-kai.—Area, 2,800 acres; leased to E. Lindermann, at \$800 per annum. Lease dated April 13, 1891, and to expire July 1, 1921. Total value of these lands, with their abundant water supply, is about \$750,000.

ISLAND OF HAWAII.

DISTRICT OF KONA.

Puuwaawaa.—Area, about 40,000 acres. Has about 7 miles of coast line, including Kiholo Harbor, and extends inland about 14 miles to an elevation of 6,900 feet. Mostly barren lava on lower lands. Some of upper land good grazing. Some arable land between 2,500 and 3,500 feet elevation. No running water. Considerable rain. Value, about \$75,000. Under lease to R. Hind, at \$1,210 per annum. Lease dated March 1, 1894, and to expire August 15, 1918. Lessee required to allow no lantana to grow upon the land.

Haleohiu.—Area supposed to be about 1,000 acres. Has about one-half mile of coast line on west coast, and extends about 7 miles inland to an elevation of about 3,300 feet. Very long and narrow. Rough and dry pasture land. Value, \$1,250.

Waiaha 2.—Area about 260 acres; about one-fourth the size, otherwise same lay and general character as Haleohiu. Value, \$350.

Puaa.—Adjoins Waiaha 2, and said to contain 859 acres. This area is doubtful. If correct, value about \$1,075. Class same as Haleohiu.

Onouli.—Area, 367 acres. Inland, and covered with a heavy forest of koa and ohia. Value about \$1,000.

Honomalino.—Remaining area about 1,200 acres of heavy forest, inland, at an elevation of 3,000 feet. Value, \$3,500.

DISTRICT OF KAU.

Waiohinu.—Fifteen thousand two hundred and ten acres, near the south point of Hawaii. Has about 3 miles of coast line, including a

safe harbor, called Kaalualu. Extends inland about 16 miles to an elevation of 5,800 feet. The lands nearest to the coast are very rough and rocky grazing lands. The middle section contains a fair proportion of arable land, and the upper portion is covered with a dense forest of koa and ohia. Has frequent rains and a good supply of spring water. Under lease to the Hutchinson Sugar Company, at \$600 per annum. Lease dated April 5, 1889, and to expire April 1, 1914. Value, \$75,000.

Kapapala.—Area, 172,780 acres. Has about 7 miles of coast line on southeast coast, and extends inland 25 miles to the summit crater of Maunaloa at an elevation of about 13,500 feet. The lower lands are extremely dry and of very small value. The western portion contains some arable land and a large area of grazing land. Considerable rainfall on upper and western lands. Value, \$175,000. Under lease to Hawaiian Agricultural Company, at \$1,200 per annum. Lease dated July 1, 1887, and to expire July 1, 1907.

DISTRICT OF PUNA.

Olaa.—Area of remainder not cut up into homesteads, about 10,000 acres. Inland on east slope of mountain, between 2,700 and 5,000 feet elevation. Good for little else than grazing purposes. A small portion may be used later for summer mountain homes. Value, probably, \$20,000.

Apua.—Area, 9,400 acres. Has about two miles of coast line on southeast coast of Hawaii, and extends inland 8 miles to an elevation of 3,200 feet. Very rocky grazing land. Value, \$14,000.

Kaimu-Waiakolea.—Area about 5,000 acres. Has about 1½ miles of coast line on southeast coast.

Kehena.—Area about 1,000 acres. Has about 1 mile of coast line on southeast coast.

The above lands of Kaimu-Waiakolea, Kehena are of similar character, being mostly rocky grazing land, with patches of arable land here and there. Probable value about \$9,000. An 18-acre fish pond is under lease to H. E. Wilson, at \$40 per annum. Lease dated June 17, 1896, and to expire May 1, 1911.

DISTRICT OF HILO.

Waiakea.—Area about 95,000 acres. Has about 9 miles of coast line, commencing at Hilo Harbor and running east and south. Extends inland about 26 miles to an elevation of 6,000 feet. Contains about 150 acres of what might be termed town lots, probably as much more that could be called beach lots, about 5,000 acres of cane land, and balance grazing land. Portions very rough and rocky. A number of large and first-class fish ponds form a part of Waiakea. Value, \$750,000. Under lease to Waiakea Mill Company, at \$2,000 per annum. Lease dated June 1, 1888, and to expire June 1, 1918.

Ponahawai.—Reserved for homesteads and mostly taken up.

Piihonua.—Area about 57,236 acres. Extends from the water front 21 miles inland to an elevation of 6,000 feet. Value of other than town property, \$225,000. Under lease to John Baker, at \$300 per annum. Lease dated March 21, 1887, and to expire March 21, 1921.

Ili of Waiuu.—An unknown area in heart of Piihonua, 125 acres, under lease to Hilo Sugar Company, at \$500 per annum. Lease dated December 1, 1890, and to expire December 1, 1915. Value, \$12,500.

Humuula.—Area about 101,500 acres. Has but 1 mile of coast frontage. Extends inland about 40 miles to an elevation of 12,500 feet. Has about 1,000 acres of cane land near coast, and several thousand acres of arable land between cane belt and 7,000 feet elevation. Large tracts of lava and waste lands. Value, probably \$125,000. Under lease to Humuula Sheep Station Company, at \$1,000 per annum. Lease dated March 6, 1876, and to expire April 1, 1908.

Hakalan-Iki.—Area, 575 acres. On southeast coast of Hawaii, and has about one-half mile of coast line and extends about $\frac{1}{2}$ miles inland. All good cane land. Value, \$65,000. Under lease to Claus Spreckels, at \$500. Lease dated October 15, 1878, and to expire October 15, 1908.

Manowaiopae.—Area, 180 acres. On southeast coast of Hawaii. Long, narrow strip. Has valuable water rights. All cane land. Value, \$20,000. Under lease to Laupahoe Sugar Company, at \$180 per annum. Lease dated March 28, 1893, and to expire April 1, 1908.

DISTRICT OF HAMAKUA.

Honokaia.—Area, 5,186 acres. Has three-fourths of a mile sea frontage on north coast of Hawaii. Extends inland about 8 miles to 3,300 feet elevation. Lower portion good cane land, and upper part good grazing land. Value, \$80,000. Seven hundred and fifty acres under lease to Honokaa Sugar Company, at \$2,776 per annum. Lease dated April 1, 1893, and to expire April 1, 1913. Balance (about 4,400 acres) under lease to Parker estate, at \$305 per annum. Lease dated October 1, 1878, and to expire July 1, 1913.

Kalopa.—Area, 6,600 acres. Has about one-half a mile frontage on north coast of Hawaii, and extends to 7,200 feet elevation, 13 miles up slope of mountain. Lower portion fine cane land. Has fine koa forest. All open land, good grazing. Value, \$125,000. Under lease to Parker estate, at \$1,033 per annum. Lease dated July 1, 1886, and to expire July 1, 1913.

Waimanu—Muliwai—Kaohia—Pohakumauluulu.—Area about 10,000 acres. High mountain and deep valley land, with frontage of about $3\frac{1}{2}$ miles and depth of $4\frac{1}{2}$ miles on north coast of Hawaii. Probably 5 acres of arable bottom land; balance high lands covered by heavy forests. Value, \$20,000. Two hundred and thirty-three acres under lease, as follows: Two hundred acres to L. Akaka, at \$400 per annum. Lease dated January 1, 1899, and to expire January 1, 1920. Thirty-three acres to Mrs. L. Kaili, at \$150 per annum. Lease dated July 15, 1887, and to expire July 15, 1912.

DISTRICT OF KOHALA.

Pololu.—Area about 1,300 acres. A deep valley on north coast of Hawaii, with sea frontage of one-half mile and depth of $\frac{1}{2}$ miles. Contains about 200 acres of rich bottom land, the balance being very steep and heavily wooded bluffs. Value, \$20,000. Under lease to G. C. Akina, at \$600 per annum. Lease dated January 7, 1882, and to expire January 1, 1905.

Kuanukuhu.—Area about 1,300 acres. Has about one-half mile sea frontage on extreme north point of Hawaii; depth of 5 miles. Good cane and grazing land. Value, \$37,500. Five hundred and eighty-three acres under lease to Hind estate, at \$1,400 per annum. Lease dated April 5, 1898, and to expire May 1, 1913. One hundred acres

under lease to Union Mill Company, at \$300 per annum. Lease dated April 5, 1898, and to expire May 1, 1913.

Kawaihae.—Area, 13,000 acres. Has about 2½ miles of frontage on west coast of Hawaii, with depth of 10 miles. About 5,000 acres very dry and poor pasture land. Balance very good grazing land, with sufficient water. Small portion arable. Regular landing at village of Kawaihae. Value, \$40,000. Under lease to Parker estate, at \$1,050 per annum. Lease dated January 1, 1888, and to expire July 1, 1913.

Momoualou.—Area, 317 acres. A long, narrow strip of land, between 2,500 and 5,000 feet elevation, on south slope of Kohala Mountain; a portion arable, though mostly good for grazing only. Value, \$1,500. Under lease to Parker estate, at \$64 per annum. Lease dated November 15, 1853, and to expire July 1, 1913.

Waimea.—Area, 41,600 acres. Has a sea frontage of about 5 miles, including Puako Harbor, and extends inland about 20 miles. Several thousand acres of this land, at an elevation of 2,000 to 3,000 feet, is fine arable land, with plentiful supply of water. The lower land is mostly dry grazing, though there is some cane land at Puako. The highest lands furnish good grazing. Value, \$350,000. This land is all under lease to Parker estate; one lease of 258 acres, at \$258 per annum, lease dated June 30, 1888, and to expire June 1, 1908; and two leases on balance—one dated January 1, 1876, at \$1,334 per annum—the other July 1, 1878, at \$793 per annum, both to expire July 1, 1913.

THE PUBLIC WORKS DEPARTMENT.

By C. S. HOLLOWAY.

Under the former Monarchy and Republic, the department having charge of all internal improvements was under the direction of the minister of the interior. By provision of the organic act, the powers of this official were placed under the control of the superintendent of public works and a few of the duties transferred to other departments, such as the care of public lands, promotion of agricultural interests, naturalization of foreigners, promulgation of proclamations, direction of insane asylums, issuance of licenses, and registration of trademarks and brands. The construction and maintenance of light-houses and buoys was also under the supervision of the superintendent of public works until January 1, 1904, when this department was taken over by the Federal Government, President Roosevelt having issued a proclamation to this effect.

At the present time the construction of all roads and bridges, landings, wharves, and public buildings, as well as repairs to them, the operation of the Government waterworks, sewerage systems, electric-light plants, maintenance of public grounds, with the exception of one park in Honolulu, for which a commission is appointed by law, the public markets, and the pilots' establishments, are under the control and management of the public works department.

The force consists of the superintendent, assistant superintendent, and chief clerk, with his office staff, organized to collect revenues from the waterworks, sewerage system, public markets, government wharves, and rents of city property, and this subdepartment also looks after the expenditures made for public works. There are also super-

intendents for the waterworks, electric-light and sewerage departments, and a road supervisor for Honolulu. The harbor master has control of all vessels entering this port and collects fees from them for wharfage.

Plans and specifications are drawn up in the office of the assistant superintendent, and as the law requires that all work or purchase of material amounting to over \$500 shall be awarded by contract only after public advertisement for tenders, this requires the service of a large corps of engineers and draftsmen in preparing plans and specifications.

The following statements show the amounts of appropriations, and expenditures for the year ending June 30, 1904, and amounts unexpended.

SALARIES AND PAY ROLLS.

In the analysis of salaries and pay rolls, groupings are as follows:

General superintendence.—Superintendent, assistant superintendent, chief clerk, first assistant clerk, second assistant clerk, third assistant clerk, fourth assistant clerk, stenographer and typewriter, agent public works Hilo, two messengers, clerk to assistant superintendent, typewriter, and draftsmen.

Roads and bridges.—Road supervisor, road engineer, bookkeeper, road supervisor, cantoniers, and pay roll roads and bridges, Honolulu.

Waterworks.—Superintendent, clerk and assistants, reservoir keepers, plumber and assistants, tap inspector, shipping tenders, engineers and fireman, Honolulu; superintendent Lahaina waterworks, superintendent Wailuku and Kahului waterworks, superintendent Hilo waterworks, superintendent Laupahoehoe waterworks, and superintendent Koloa waterworks.

Sewerage.—Superintendent of sewers, sewer pay rolls, pay rolls garbage and excavator service, and pay roll garbage crematory.

Fire department.—Regular pay roll, fire department.

Electric lights.—Electric-light pay roll.

Harbor expenses.—Harbor master, assistant harbor masters, pilots, pay roll of pilot boats, watchman Diamond Head, watchman pilot's office, keepers of Hilo and Lahaina wharves, and steam tug pay roll.

Grounds and buildings.—Pay roll government buildings, Aala Park, Thomas and Emma squares, guards, janitor and keeper of mausoleum.

Miscellaneous.—Pay rolls Waiakamilo Camp, Honolulu market keeper and assistant, Hilo market keeper, pound masters, veterinary surgeons, light-house keepers, keepers gunpowder and kerosene oil, Honolulu and Hilo.

	Appropriations.	Expended.	Unexpended.
General superintendence.....	\$37,500.00	\$22,390.83	\$15,109.17
Roads and bridges.....	28,113.00	25,805.68	2,307.32
Waterworks.....	29,205.00	24,678.38	4,526.62
Sewerage.....	57,768.00	45,569.67	12,198.33
Fire department.....	68,560.00	43,351.62	25,208.38
Electric lights.....	9,180.00	9,005.00	175.00
Harbor expenses.....	78,300.00	35,142.80	43,157.20
Grounds and buildings.....	24,960.00	10,505.21	14,454.79
Miscellaneous.....	11,627.50	9,120.40	2,507.10
Total.....	345,213.50	225,569.59	119,643.91

ROAD WORK AND BRIDGES.

While this department has entire supervision of road work on the various islands of the group, it was some time ago deemed advisable to have local representation, and a system was adopted whereby a board of three men was appointed by the superintendent of public works in each district, to serve without pay. These boards have charge of the construction and maintenance of the roads and bridges, as well as the expenditure of road-tax funds in their various districts, amounting to \$2 per capita. Originally this system was operated satisfactorily, and it has accomplished much in building up a high standard of roads. Now, however, in many districts, there is so much work to be done that a volunteer service of this kind is inadequate, and paid engineers have been found to be more efficient. The last legislature made provision for a road engineer on the Island of Hawaii, and, as his work has proven so satisfactory, in all probability this arrangement will be adopted for the other main islands of the group. The roads in Honolulu and also the outer districts are in general well laid out, of moderate grade, and properly drained. In Honolulu and Hilo stone macadam is used entirely, the rock being obtained from government quarries, and for light traffic it will be hard to improve on this form of pavement.

Nearly all of the freight imported to the islands is landed at Honolulu and Hilo, so that there is a large amount of heavy hauling on the water front in these cities. Permanent pavements, either of stone, vitrified brick, wood, or bitumen, should be constructed. This matter is being carefully looked into at the present time in order that definite estimates can be submitted to the next legislature, and they will then be in a position to make proper appropriations if it is found desirable to take up this work. Each island has what is known as a belt road around it, and these, in most instances, consist of dirt covering, with side ditches, the top surface being properly crowned and packed. Such roads give very good satisfaction in certain districts where the rainfall is very excessive, but it is impossible to prevent a certain amount of damage in time of freshets. The general plan being followed at present contemplates the macadamizing of all of these main roads, and this work has been completed in several districts.

On Oahu, Hawaii, and Maui the bridges in most instances are of the ordinary wooden-truss construction, although on Hawaii and Kauai there are several steel bridges exceeding 100 feet in length. As far as possible in future work concrete or stone arches will be installed where the span is not too great, as there is practically no expense in the maintenance of such structures, whereas the climatic conditions here materially affect the life of steel and wood, and there is a considerable yearly expense required in repainting.

Statement of expenditures of road funds for the various islands for the year ending June 30, 1904.

	Appropriation.	Road tax.	Total.
Island of Hawaii	\$108,295.85	\$29,582.35	\$132,878.20
Islands of Maui, Molokai, and Lanai	11,073.61	12,967.24	24,040.85
Island of Oahu	181,301.78	44,090.81	225,392.59
Islands of Kauai and Niihau	35,238.76	16,986.59	52,225.35
Total	330,910.00	103,626.99	434,536.99

WATER SUPPLY AND SYSTEMS.

The government at the present time has waterworks systems in Honolulu, Hilo, Wailuku, Lahaina, Koloa, Waimea, and Laupahoe, revenues from which amounted during the past year to \$118,443.47. Honolulu is supplied with mountain water from a gravity system, as well as artesian water pumped from the lower levels to the various distributing reservoirs. There are three pumping stations, situated in different sections of the city, having a daily capacity of about 10,000,000 gallons in twenty-four hours. There is no question but that a sufficient supply of mountain water can be obtained by development in Nuuanu and Kalihi valleys and the construction of additional reservoirs. This work has been taken up under the appropriations made in the loan fund, and two reservoirs are under construction in the outer districts, one at Diamond Head, Waikiki, and the other at Kalihi. The engineering department is making full investigation in regard to the proper selection of a site for the Nuuanu reservoir, which will have a capacity of approximately 100,000,000 gallons. With this reserve the city would be amply supplied with water under a sufficient head, so that there will be no necessity of using the pumping engines. The pipe system throughout the city will have to be rearranged, and new pipe is on hand now, so that this work will be taken up immediately. It is believed that when the supply is made entirely by gravity this will tend to lower the insurance rates, as there will be no danger of interruption on account of breakdowns to the pumps. On the other islands, gravity systems have been installed at Hilo, Lahaina, Wailuku and Kahului, Waimea, Koloa, and Laupahoe, and reservoirs of sufficient capacity constructed at elevations above the town so that in case of fire the water pressure is sufficient and engines are not required. In Hilo and Kahului, as well as Honolulu, fire hydrants have been installed, and while there is a paid force of firemen in Honolulu, the others are volunteer organizations.

LOAN MONEY EXPENDITURES.

The first installment of money acquired from the sale of Territorial bonds, amounting to \$1,000,000, becoming available on December 18, 1903, immediate steps were taken to complete the investigations necessary to carry out the appropriations under the loan bill, so that specifications could be prepared and tenders called for. Expenditures to date are \$505,036.78, although contracts have been made which are as yet uncompleted, amounting to \$850,000, leaving a balance of \$150,000.

DREDGING HONOLULU HARBOR.

Probably the most important undertaking, when the interests of the Territory at large are considered, is the dredging of the Honolulu Harbor and the extension of the present wharf system, and it is well to call attention at this time to improvements in the harbor itself, which have been carried out since annexation.

From July 1, 1900, to June 30, 1904, expenditure on this work has been as follows:

Dredging Honolulu Harbor	\$122, 845. 40
Harbor moorings and buoys.....	11, 481. 77
Harbor improvements	8, 954. 91
Total	143, 282. 08

This work, as well as the maintenance of the light-houses, to January 1, 1904, should properly have been undertaken by the Federal Government. The cost of the maintenance of light-houses for the above period was \$39,939.99.

WHARFAGE SYSTEM AND IMPROVEMENTS.

With large steamers stopping at this port it is of the utmost importance to have the harbor of sufficient depth and size so that they can be properly handled, and through boats will find it convenient to call at this port. The harbor of Honolulu is not large, but very safe and easy of entrance. It varies in depth from 24 to 34 feet, and estimates have been made with the idea of an average depth of 34 feet throughout, the cost of this work being estimated as follows:

Soft material required to be taken out in order to obtain average depth of 34 feet, 860,000 cubic yards; cost estimated at 30 cents per yard	\$258, 000
Material composed of loose and disintegrated coral on the two shoals just inside of the channel to bring depth to 34 feet, 500,000 cubic yards; cost estimated at 90 cents per yard	450, 000
Material on light-house spit, 60,000 cubic yards of coral, estimated cost at 90 cents per yard	54, 000
50,000 cubic yards of mud, estimated at 30 cents per yard	15, 000
Total cost of dredging to 34 feet	777, 000

Since annexation the increase in shipping has rendered the wharf facilities inadequate, and the Government being unable to move with sufficient dispatch, private enterprises took up this work and the Oahu Railway and Land Company have constructed wharves which are under private management.

The former superintendent of public works made comprehensive plans for improvements, and the last legislature made an appropriation of \$300,000 for the reorganization of the Honolulu wharf system, as well as \$50,000 for the dredging of the channel entrance to the harbor. This dredging has just been completed and provides a waterway not less than 34 feet below mean tide at any point. At the eastern end of the harbor, next to the naval reservation, it is proposed to cut a new slip sufficient in size and depth for the new trans-Pacific steamers. The plans as finally approved contemplate a slip 200 feet in width and 610 feet in length, with covered wharves on both sides. The wharf adjacent to the naval station will be 75 feet in width, and for the present will extend out to the end of the naval wharf, within 100 feet of the harbor line, as established by the War Department. The point of land on which the light-house is standing is directly opposite this wharf, and projects so far into the harbor that it would be impossible for large steamers to turn in coming out of the slip if the wharf were carried to the harbor line. It is to be hoped that immediate steps will be taken by the Federal Government to cut away this spit of land as well as dredge the harbor to a depth of 35 feet.

SEWERS AND DRAINAGE.

The appropriation as made in the loan bill for sewers, Honolulu, amounting to \$80,000, has been expended, and the entire system as planned by Mr. Hering, with the exception of a small district in Nuuanu Valley, between Liliha and Nuuanu streets, from Kuakini to

Wyllie, completed. No provisions have been made for the Kakaako district, as a large portion of the land is below sea level, and sufficient slope can not be given to the pipes without the installation of an additional sewerage pumping station.

Work has also been carried on in connection with the system of storm sewers and drains under the appropriation in the loan fund of \$20,000. The location of the Honolulu roads and the surrounding country is such that great difficulty is found in taking care of storm water during the rainy season, and considerable damage is done to the streets where suitable provisions have not been made for storm sewers. Further additions to this system are required, and perhaps that work can be taken up after the legislature has met.

Plans for a sanitary sewer in Hilo have been prepared, but the appropriation of \$10,000 is entirely insufficient to properly carry out this work, and it is evident that it would be preferable to await a further appropriation from the legislature so that this system could be completed at one time.

GARBAGE AND CREAMATORY.

The Government maintains a garbage department in Honolulu, and during the past year the expenses have amounted to \$48,595.48, whereas the receipts were \$12,080.25.

A crematory was purchased several years ago, but funds were not provided at the time to cover the cost of erection. This work is now progressing satisfactorily, and should be completed about December 1. With this plant in operation, there will be a material saving in the cost of the disposal of garbage, as a large amount of it is now dumped at sea.

SCHOOL BUILDINGS CONSTRUCTED.

A large number of school buildings have been constructed on the various islands of the group, at an expense of \$92,827.90, as follows: Maui, 3 school buildings, 1 teacher's cottage; Oahu, 6 school buildings, 5 teachers' cottages; Hawaii, 4 school buildings, 4 teachers' cottages; Kauai, 3 school buildings; Molokai, 2 school buildings.

Of these the most important are the Royal school in Honolulu, which is a two-story brick building with cement outside finish; the school at Wailuku, Maui, which is constructed of stone; the Lahaina-luna school buildings, which also embrace dormitories for the boys living there; and the Lihue school, Kauai, the latter being a frame building of neat construction. The plans for the new normal school, Honolulu, have been prepared and contract for this work will be awarded very soon.

OTHER PUBLIC BUILDINGS.

The new dispensary for Honolulu was completed about the first of the year, and is of concrete construction throughout with the exception of the interior walls. Judging by reports received from the board of health, this building has proven most satisfactory as a dispensary and chemical laboratory. The present morgue, located in the rear of the dispensary, is a frame building, and is not suitable for the requirements of the board of health. It is strongly recommended

that a concrete building be erected and that it be made sanitary throughout.

The fireproof laboratory at the Federal experimental station is of concrete construction, and will be completed in about one month's time, as well as the residence for chemist at this station, which is a two-story wooden building.

The cottage for the superintendent of the insane asylum has been completed and is now occupied. It is of artistic design, and will be in keeping with the general character of the new buildings for the insane, for which plans have been prepared and tenders submitted. These buildings will be of concrete block construction, these blocks being subject to heavy pressure so that there will be no possibility of any absorption of moisture. They are designed with an air space so that proper circulation of air is obtained in all of the rooms. The inside finish will be in white enamel, and this will permit of the walls being washed frequently and everything kept in the best sanitary condition. There will be separate buildings for the men and women, also outside kitchen and bath houses.

OTHER NECESSARY IMPROVEMENTS.

Further work under the loan appropriation is being taken up as fast as specifications are prepared, and these contemplate the construction of a large number of new roads throughout the islands as well as additional court-houses and school buildings.

Appropriations were made for wharves at Lahaina and Kahului, and the former will probably be constructed during the latter part of this year. The harbors at these places are not well protected, being more in the nature of open roadsteads, and in stormy weather the anchorage is unsafe. Large steamers engaged in carrying sugar to the coast enter these ports as well as Honolulu. Recommendations for extensive breakwaters have been made to the legislature, but no money has been appropriated for this work. It is to be hoped that the Federal Government will appreciate the necessity of carrying out these improvements in order that the large shipping interests concerned may have proper protection. The small steamers call at numerous ports on the various islands, but the landing of freight and passengers is made by means of shore boats, the depth of water at the wharves not being sufficient for steamers to run alongside. In most instances the expense of building these wharves out to deep water would not be warranted by the amount of freight handled.

The following table shows the various amounts expended and unexpended from the loan fund that were authorized by the legislature and for which contracts had been let on June 30, 1904:-

LOAN.

	Expended.	Unexpended.
Reorganization of the wharf system, Honolulu	\$60,415.97	\$239,584.08
Wharf and landing, Pukoo, Molokai	69.00	4,931.00
Dredging Honolulu Harbor and deepening bar	46,883.75	3,116.25
New jail, Oahu	7,508.47	12,491.58
New insane asylum, Oahu	5,197.60	69,802.40
New dispensary, Honolulu	8,000.00	.....
Purchase of lots, electric-light station, Nuuanu Valley	6,000.00	.....
Schoolhouses and teachers' cottages, island of Oahu	60,601.06	94,798.94

LOAN—Continued.

	Expended.	Unexpended.
Schoolhouses and teachers' cottages, island of Hawaii	\$9,540.25	\$81,459.75
Schoolhouses and teachers' cottages, islands of Maui, Molokai, and Lanai	14,468.29	70,581.71
Schoolhouses and teachers' cottages, island of Kauai	7,822.13	19,177.87
Fireproof building for the preservation of the government archives	2,100.00	72,900.00
Fireproof laboratory, library, and office building for Federal experiment station	65.00	2,985.00
Residence for chemist, Federal experiment station	60.00	1,440.00
Armory, Honolulu	1,050.00	28,950.00
Armory, Wailuku	41.00	4,959.00
Armory, Hilo	41.00	4,959.00
Wharf at Kawaihāe and approach thereto	100.00	3,400.00
<i>County of east Hawaii or districts of Hamakua, north Hilo, south Hilo, and Puna.</i>		
<i>Puna:</i>		
Road from Halepuaa to Kanlahiku	209.75	5,790.25
Road between 21½ and 22 miles, Volcano road	520.45	7,479.55
<i>Hamakua:</i>		
Relocating and constructing 4 miles of road between Ookala and Kukaiaua	166.00	14,834.00
<i>South Hilo:</i>		
Kaumana Homestead roads, including McFarlane road	5.00	9,995.00
Sewerage system	302.85	9,697.15
<i>County of West Hawaii or districts of North Kohala, South Kohala, North Kona, South Kona, East Kau, and West Kau.</i>		
<i>Court-house, jail, jailer's house, and water tank at Hookena and Kauhako, upper Government road</i>		
	16.50	2,983.50
Water supply to Waimea Village, Hawaii	268.30	9,781.70
New road from Kailua to join Keauhou road at Kahaluu	357.95	9,642.05
Road from Pahala to Volcano House, or so much thereof as may be necessary to complete contract	4,848.40	20,151.60
<i>County of Maui or islands of Maui, Lanai, and Kahoolawe.</i>		
Road Nahiku to Kailua	161.84	39,838.16
Puualuu to Moolea	24.00	9,976.00
Completion Kula Homestead road	33.65	3,966.35
Relocating and constructing new road from Peahi to Kailua, Hamakualoa, Maui	154.00	12,846.00
Bridge across Maliko Gulch at Kaluanui	20.19	1,979.81
Road Puuhele to Kihel	91.75	3,908.25
Relocating and reconstructing road and bridges, Wailuku to Iao	139.20	9,860.80
<i>Oahu County or island of Oahu.</i>		
Garbage crematory	276.26	9,723.74
Sewerage	63,054.56	16,945.44
Outfall sewer	18.00	19,982.00
Storm sewers and drains	12,118.89	7,881.11
Nuuanu reservoir No. 4	18.34	74,981.66
For the purchase of the Pahoa waterworks, including pumping plant, artesian wells, reservoir, tanks, 1½ acres of land, pipe lines, and all necessary right of way	75,000.00	.....
Kalihi reservoir	545.81	49,454.19
Diamond Head reservoir	5,994.00	2,006.00
Cast-iron pipe for the waterworks department, Honolulu	88,834.02	51,741.85
Fourth district stables	135.50	7,364.50
Fifth district stables	338.94	7,161.06
<i>District of Waialua:</i>		
Steel or concrete bridge at Kaupoo	21.00	8,979.00
Steel or concrete bridge, Kaukonahua	2.64	3,997.36
<i>District of Ewa and Waianae:</i>		
Bridges, approaches, and abutments	216.89	24,783.11
Road, Kipapa and Waikakalaua gulches	550.98	9,449.02
<i>Honolulu:</i>		
Fort street extension and purchasing right of way	2,348.91	17,651.09
Pauahi street extension and purchasing right of way	1,436.75	3,563.25
School street extension and purchase of right of way from Liliha street to Kamehameha IV road, opposite Markhams Lane	5,007.55	54,992.45
Queen street extension and purchasing right of way	8,966.18	11,083.82
<i>County of Kauai or islands of Kauai and Niihau.</i>		
Landings and buoys	2,868.21	5,131.79

COLLECTIONS BY PUBLIC WORKS DEPARTMENT.

The following statement shows the amounts and sources of collections by the department of public works for the twelve months ending June 30, 1904:

Garbage	\$7, 512. 75
Rents	42, 433. 34
Sewerage	6, 767. 26
Excavator	4, 567. 50
Land sales	2, 241. 14
Weights and measures	100. 10
Market	10, 851. 50
Government realizations	13, 380. 17
Total	87, 853. 76

Detailed statement of government realizations, July 1, 1903, to June 30, 1904.

Fees:		
Building permits	\$685. 00	
Cemetery gate receipts	189. 00	
Registry of brands	4. 00	
		\$878. 00
Sales:		
Old lumber, etc	511. 35	
Old building, etc	285. 50	
Sundry materials	12. 10	
Macadam and sweepings	71. 90	
Piles	67. 05	
Auction, Kalihi Camp, wharf shed, mules, etc	6, 997. 00	
Blueprints	4. 00	
Pilot boat	60. 00	
Old iron	195. 00	
Wood, etc	26. 00	
Copper	78. 40	
Empty sacks	22. 50	
		8, 330. 80
Sundries:		
I. O. U's on B. H. Wright shortage	300. 00	
Damage to Dolphin	139. 17	
Pounds, government	90. 15	
Use of steam roller	46. 75	
Use of diving gear	25. 00	
Hawaiian Electric Company, 2½ per cent on \$142,812.01, gross earnings to May 31, 1904	3, 570. 30	
		4. 171. 37
Total		13, 380. 17

SEWERAGE.

The following shows the collections of rates and fees of the Honolulu sewerage system from July 1, 1903, to June 30, 1904:

Rates	\$6, 532. 21
Application fees	235. 0
Total	6, 767. 2

WEIGHTS AND MEASURES.

For the twelve months ending June 30, 1904, the following number of scales and measures have been tested, adjusted, and stamped, viz:

Counter and spring-balance scales	53
Counter platform scales	53
Union platform scales	7
Portable scale	1
Beam scale	1
Balance scales	10
Twenty-ton scale	1
Liquid measures	7

Statement of receipts, by bureaus, of the department of public works from July 1, 1903, to June 30, 1904.

Harbor master:	
Honolulu	\$66, 210. 73
Hilo	2, 260. 67
Kahului	2, 711. 25
Powder magazine:	
Honolulu	1, 680. 75
Hilo	307. 30
Kerosene warehouse:	
Honolulu	4, 484. 65
Hilo	277. 95
Waterworks:	
Honolulu	103, 316. 02
Hilo	6, 965. 75
Laupahoehoe	126. 05
Wailuku and Kahului	4, 497. 80
Lahaina	2, 854. 80
Koloa	190. 00
Waimea	483. 05
Total	196, 366. 77

FINANCES.

By A. J. CAMPBELL.

Under the treasury department of the Territory of Hawaii are included the treasury proper and the bureau of taxes, conveyances, and insurance.

The treasury proper is organized as follows, viz:

	Annual salary.
A treasurer	\$3, 600. 00
A registrar (assistant treasurer)	3, 000. 00
Bookkeeper and deputy insurance commissioner	2, 400. 00
License clerk	1, 500. 00
Assistant clerks and stenographer	1, 860. 00

Formerly this department undertook much of the bookkeeping work of the government, but the audit act, passed May 24, 1898, provided that the audit department be the accounting department, and this office now confines its accounts to a cash book and a limited number of special accounts which do not appear in the auditor's books.

Government officials in all parts of the Territory remit to this office and also send statements of such remittances to the audit department and receive from this office a receipt, countersigned by the auditor, for such remittances.

BUREAU OF TAXES.

The Territory is divided into four divisions for the assessing and collection of taxes, and there is an assessor and collector of taxes for each division appointed by the treasurer, by and with the approval of the governor. Each assessor is supplied with deputy assessors and assistants sufficient to properly assess and collect the taxes of his division.

The annual salaries of the assessors are:

Assessor first division, Island of Oahu	\$2,700
Assessor second division, Islands of Maui, Molokai, and Lanai.....	2,100
Assessor third division, Island of Hawaii.....	2,400
Assessor fourth division, Island of Kauai.....	1,800

It is the duty of these officials to make assessments and collect the taxes, remitting to the treasury daily from the Island of Oahu and weekly from the other divisions.

All property is assessed as of January 1 of each year at as near its actual cash value as possible, and the tax is 1 per cent on the total assessed value after deducting an exemption of \$300 from such assessed value.

Before July 1 any taxpayer whose return has been changed in any way by the assessor is notified of such change, and if not satisfied with the change he has until the 20th of July to note an appeal to the tax appeal court, which sits from the 1st to the 20th of August.

The assessment books are ready for inspection from the 1st to the 15th of July.

Incomes are annually assessed as of July 1, and the tax is 2 per cent of the net income after deducting an exemption of \$1,000.

All property and income taxes are due September 1 and delinquent November 15.

Every male inhabitant of the Territory between the ages of 20 and 60 is required to pay poll, road, and school taxes amounting to \$5, which are due January 1 and delinquent April 1. The amount of this road tax for each district of each division is held in the treasury as a special deposit, to be used under the supervision of the road board of the district where collected and on roads in that district only.

BUREAU OF CONVEYANCES.

This office is maintained for the purpose of recording all documents. Mr. C. H. Merriam is in charge of this office, with a salary of \$2,100 per annum, and six assistants under him.

Records are kept in fireproof vaults, thoroughly indexed, and date back to 1845. Lately the card system of indexing has been installed in this office.

INSURANCE.

Formerly any taxing of insurance companies was done by the tax assessor, but the 1903 session of the legislature passed an insurance law, modeled after the insurance laws of many States, which provides that each licensed company pay to the Territory a tax of 2 per cent on its net income. It also provides that a company which is not financially sound shall not do business in the Territory, and authorizes the insurance commissioner to revoke the license of any company whose capital becomes impaired.

BUBONIC PLAGUE.

At the opening of the year 1900 the Hawaiian treasury had on hand a surplus of current cash amounting to \$1,531,784.29, but unfortunately an epidemic of plague broke out and the care of the quarantined and other expenses involved the Territory in a very heavy outlay. Business was paralyzed and a vigorous attempt was made to stamp out this epidemic by the burning of buildings and destruction of all infected properties.

On January 20, 1900, while burning an infected building, owing to a change of wind, the fire got beyond control of the fire department and burned out about 25 acres of the most thickly populated portion of the city. The estimated loss was about \$4,000,000, and fell for the most part on those who could least afford it. It was indirectly caused by the burning of an infected building which was destroyed for the benefit of the whole community. Under these conditions the consensus of opinion was that the loss should be stood by the entire people.

With the approval of President McKinley a commission was appointed to adjudicate the claims made by these losers, but as there was some doubt about the legality of appointing a commission without authority of the legislature, this commission took no action.

On June 14, 1900, the organic act went into effect. This precluded the possibility of the Territory issuing bonds to pay these claims. The next session of the legislature provided for a commission and made partial provision for the payment of these claims. This commission met and awards were made amounting to \$1,473,173, which sum was about one-half the actual loss. An appeal was made to Congress and an act was passed by that body providing for the payment from the Federal Treasury of \$1,000,000 and authorizing the Territory to issue 4 per cent 5-15 bonds to the amount of \$326,000. According to the terms of this act, \$315,000 of these bonds were issued and sold to claimants at par.

On June 30, 1904, all claims were paid but \$13,448.83, and there was held in the treasury to meet these \$14,182.96.

This excess will revert to current cash after the final settlement of all claims.

FIRST ISSUE OF TERRITORIAL PUBLIC-IMPROVEMENT BONDS.

The organic act provides as follows:

Portion of section 55:

Nor shall the government of the Territory of Hawaii, or any political or municipal corporation or subdivision of the Territory, make any subscription to the capital stock of any incorporated company, or in any manner lend its credit for the use thereof; nor shall any debt be authorized to be contracted by or on behalf of the Territory, or any political or municipal subdivision thereof, except to pay the interest upon the existing indebtedness, to suppress insurrection, or to provide for the common defence, except that in addition to any indebtedness created for such purposes the legislature may authorize loans by the Territory, or any subdivision thereof, for the erection of penal, charitable, and educational institutions, and for public buildings, wharves, roads, and harbor improvements, but the total of such indebtedness incurred in any one year by the Territory or any subdivision shall not exceed one per centum upon the assessed value of taxable property of the Territory or subdivision thereof, as the case may be, as shown by the last general assessment for taxation, and the total indebtedness for the Territory shall not at any time be extended beyond seven per centum of such assessed value, and the total indebtedness of any subdivision shall not at any time be extended beyond three per centum of such

assessed value, but nothing in this provision shall prevent the refunding of any existing indebtedness at any time; nor shall any such loan be made upon the credit of the public domain or any part thereof, nor shall any bond or other instrument of any such indebtedness be issued unless made redeemable in not more than five years and payable in not more than fifteen years from the date of the issue thereof; nor shall any such bond or indebtedness be incurred until approved by the President of the United States.

And act 42 of the 1903 session laws of the Territorial legislature provides as follows:

ACT 42.—AN ACT to provide for public loans.

Whereas to meet the requirements of the Territory for the erection and improvement of public buildings and educational institutions, and for wharves, roads, harbor, and other public improvements, it will be necessary to effect loans from time to time by means of the issue of bonds, and

Whereas it is necessary that all loans to be effected hereafter should be effected, and that the bonds to be issued therefor should be issued, in conformity with the act of Congress providing a government for the Territory of Hawaii, approved April 30th, A. D. 1900, and that the authority to effect such loans and issue bonds in respect thereof should be given in a uniform manner,

Now, therefore, for the carrying out of the purposes above mentioned,

Be it enacted by the legislature of the Territory of Hawaii:

SECTION 1. That the treasurer of the Territory is hereby authorized and empowered, with the approval of the governor, to issue from time to time bonds of the Territory of Hawaii, with interest coupons attached thereto, to an amount not exceeding five million dollars, the principal and interest to be paid in gold coin of the United States of America, or its equivalent at its present standard of weight and fineness, in the manner, upon the terms, and for the purposes in this act stated.

SEC. 2. No such bonds shall be issued except in pursuance of an act of the legislature defining the purposes for which the same are to be issued, nor until approved by the President.

SEC. 3. All bonds issued under the authority of this act shall bear interest, payable semiannually, at a rate of not more than five per cent per annum, and be made redeemable in five years and payable in fifteen years from the date of issue thereof.

SEC. 4. All such bonds shall be exempt from any and all taxes whatsoever, and the payment of the principal and interest thereof shall constitute a charge upon the consolidated revenues of the Territory.

SEC. 5. The proceeds of the bonds so issued shall be exclusively devoted to the purposes for which the same are issued, as expressed in act of the legislature under which the issue of the bonds is authorized.

SEC. 6. The treasurer of the Territory may, with the approval of the governor, determine the denominations of such bonds to be issued under the authority of this act, and the place in which the principal and interest of such bonds, or any of them, shall be payable, and the method of their redemption. He may make such arrangements as may be necessary or proper for the sale of the whole or any part of each authorized issue. Such arrangements shall provide for the sale of such bonds by the government itself, by public advertisement for tenders, but no bonds shall be issued at less than 2 per cent below their nominal par value; and no indebtedness shall be incurred in any one year which shall exceed one per centum upon the assessed value of the taxable property of the Territory, as shown by the last general assessment for taxation.

SEC. 7. All bonds issued under the provisions of this act shall be lithographed or steel engraved, and shall be signed by the treasurer of the Territory and by the registrar of public accounts, and be sealed with the seal of the office of the treasurer. Interest coupons shall bear a lithographed or engraved facsimile of the signature of the treasurer of the Territory.

SEC. 8. This act shall take effect and become law from and after the date of its approval.

Approved this 25th day of April, 1903.

SANFORD B. DOLE,
Governor of the Territory of Hawaii.

Under the above provisions the previous administration sent a representative to New York to negotiate the sale of \$1,000,000 worth of bonds. Arrangements were made by this representative with the United States Mortgage and Trust Company, 59 Cedar street, New

York, for the engraving and issuing of the bonds, where certified copies of the laws affecting their issue, a statement of Judge Dillon in regard to their legality, and the authentic signatures of the officials are held for public inspection.

The bonds were advertised in compliance with law and the following bids were received:

From Fisk & Robinson, New York, entire issue	\$1,000,626
From Union City Bank, New York, entire issue	998,261
From Hawaiian Investment Company, Honolulu, entire issue	998,025

Fisk & Robinson were awarded the bonds at \$1,000,626.

FINANCIAL CONDITION.

Owing to the excess of expenditures over the income and the transfer of \$699,000 from current cash to loan fund to pay balance due on appropriations made by the 1898 session of the legislature from an authorized loan of \$2,000,000, and on which only \$1,201,000 had been secured prior to annexation, and the expenses incurred in the suppression of the bubonic plague amounting to \$648,348.29, the \$1,531,784.29 surplus on hand at the beginning of 1900 had been used, and the present administration, in December last, found itself short of current cash with which to meet its obligations. On the statute books was the following law, by which it was thought a temporary arrangement for a floating indebtedness could be made:

[Act 49, session laws, 1898, as amended by act 11, session laws, 1904.]

AN ACT to further provide for the payment of current accounts.

Whereas it is expedient that authority should be given to the minister of finance (treasurer) to secure funds temporarily on loan by way of a bank overdraft; now, therefore,

Be it enacted by the legislature of the Territory of Hawaii:

SECTION 1. The treasurer, with the approval of the governor, is authorized during each biennial period to open a bank account, or bank accounts, in the name of the government of the Territory of Hawaii, with any bank or banks or financial institution carrying on business in Honolulu, and, from time to time, during each such period, to receive on loan, by way of overdraft on such account or accounts, such sums of money, not to exceed in the aggregate \$500,000 at any one time, as the said treasurer and the said governor may deem necessary to meet the current expenses of the said government.

SEC. 2. The moneys borrowed by authority of this act shall be repayable by the minister of finance (treasurer) upon his tender of the same, together with interest not exceeding six per cent per annum in gold coin of the United States of America.

SEC. 3. No money shall be obtained on such account or accounts except by draft of the treasurer, countersigned by the auditor and approved by the governor.

SEC. 4. All moneys received under the authority of this act shall be paid out and used only for the current expenses under appropriations made by the legislature, as aforesaid, of the government, and such moneys shall be repayable, and the interest thereon shall be paid out of the current revenue of the government as provided by the legislature.

SEC. 5. This act shall take effect upon date of its approval.

Approved this 19th day of April, A. D. 1904.

G. R. CARTER,
Governor of the Territory of Hawaii.

In a general consultation, there being some question as to whether this law was in conflict with the organic act, it was decided that the safest course would be to have the Territory avail itself of the provisions of section 26 of the audit act, which provides for the registration of treasury warrants. This was the first time that all government obligations, whether for labor or supplies, had to be registered,

and it created some friction, causing a loss to government employees, as the warrants are discounted at from 2 per cent up.

In April the legislature met in special session and made new appropriations within the estimated income. If these are maintained, and provision can be made to have the taxes paid semiannually instead of annually, this difficulty will be modified, but not entirely avoided.

The revised statutes covering Territories make provisions for Territories to borrow in order to tide over temporary shortages, and if Congress could be induced to pass an act specifically allowing this, it would remove all doubt, putting the treasurer in a position, by the payment of interest on temporary loans, to meet all warrants with cash and relieve the individual of the loss incurred through discounting his registered warrants.

BONDED DEBT.

On June 30, 1904, the bonded indebtedness of the Territory was \$2, 185, 000. 00
(\$498,379.53 of this amount was on hand to pay for pending contracts.)

Floating indebtedness	\$720, 093. 99	
Current cash on hand	56, 613. 29	
		663, 480. 70

Total net indebtedness		2, 848, 480. 70
------------------------------	--	-----------------

The following bonds of the Monarchy and Republic of Hawaii were assumed by the Territory of Hawaii:

Monarchy:

Loan act October 15, 1886, 6 per cent 5-20 bonds	\$2, 000, 000. 00
Loan act August 15, 1888, 6 per cent 5-20 bonds	190, 000. 00
Loan act October 25, 1890, 6 per cent 5-20 bonds	15, 000. 00
Loan act September 7, 1892, 6 per cent 5-20 bonds	69, 200. 00
Loan act September 7, 1892, 5 per cent 5-20 bonds	50, 200. 00
Loan act September 7, 1892, 4½ per cent 5-20 bonds	11, 000. 00
Loan act January 11, and February 18, 1893, 6 per cent 5-20 bonds ..	650, 000. 00

2, 985, 400. 00

Republic of Hawaii:

Loan act June 13, 1896, 5 per cent 5-20 bonds	1, 201, 000. 00
---	-----------------

Total bonded debt assumed	4, 186, 400. 00
---------------------------------	-----------------

The postal savings bank indebtedness	764, 570. 31
--	--------------

Making a total indebtedness at the time of annexation	4, 950, 970. 31
---	-----------------

The Federal Government paid	3, 999, 970. 31
-----------------------------------	-----------------

Leaving the Territory with a bonded obligation at the commencement of its career	951, 000. 00
--	--------------

Since which time it has increased its bonded indebtedness by issuing by act of Congress:

4 per cent 5-15 fire claims bonds amounting to	315, 000. 00
4½ per cent 5-15 public improvement bonds amounting to	1, 000, 000. 00

Total	2, 266, 000. 00
-------------	-----------------

And decreased the bonded indebtedness by receipts from land sales

Premiums accrued in settlement of some bonds assumed by the Federal Government	\$75, 000. 00
	6, 000. 00

81, 000. 00

Leaving a net bonded indebtedness on June 30, 1904, of	2, 185, 000. 00
--	-----------------

The proceeds from the sale of public lands are applied to the payment of bonds and during the year ending June 30, 1904, bonds were paid amounting to \$56,000.

A statement of this special deposit is as follows:

Statement of land sales, special deposit, July 1, 1903, to June 30, 1904.

Cash balance July 1, 1903.....	\$48,749.31
Proceeds of land sales received from commissioner of public lands....	18,962.42
Total.....	65,711.73
Hawaiian government 5 per cent coupon bonds paid as provided by law as follows: Loan act of June 13, 1896, bonds Nos. 116 to 171, inclusive, at \$1,000 each.....	58,000.00
Balance July 1, 1904.....	9,711.73

A detailed statement of the actual bonds outstanding is as follows, all others having been canceled:

Fire-claims bonds (issued by act of Congress approved January 26, 1903; interest at 4 per cent per annum, payable semiannually; bonds redeemable in 5 years and payable in 15 years from May 1, 1903).....	^a \$315,000.00
Public improvement 4½ per cent bonds (issued by authority of act of the legislature of the Territory of Hawaii, approved April 25, 1903, and approved by the President of the United States; interest payable semiannually; bonds redeemable in 5 years and payable in 15 years from October 1, 1903).....	^b 1,000,000.00
Loan act June 13, 1896 (outstanding) (issued by authority of act of the legislature of the Republic of Hawaii, approved June 13, 1896; interest at 5 per cent per annum, payable semiannually; bonds redeemable in 5 years and payable in 20 years from July 1, 1896).....	870,000.00
Total bonded debt July 1, 1904.....	2,185,000.00

STATEMENT OF FIRE CLAIMS.

Oct. 15, 1902. Cash received as reimbursement from the United States Government for accrued interest paid on Hawaiian government bonds from date of annexation to date of payment of bonds.....	\$140,000.00
Oct. 15, 1902. Transferred from current cash.....	7,317.30
June 15, 1904. Balance of interest on bonds assumed by the United States Government as above.....	11,589.83
Sale of fire-claims bonds at par.....	315,000.00
Claims paid by United States Government.....	1,000,000.00
	1,473,907.13
Total claims paid by the United States Government ...	\$1,000,000.00
Total warrants paid by the Territory up to June 30, 1904.....	459,724.17
Outstanding warrants June 30, 1904.....	13,448.83
Total fire-claims awards.....	1,473,173.00
Balance to credit of fire-claims fund.....	734.13

TAXABLE PROPERTY.

The assessed valuation of real and personal property in the Territory for 1903 was \$129,812,682, and the tax on this, together with the specific taxes, licenses, wharfage, water rates, rents from public lands, etc., are available for the payment of appropriations made by the legislature.

^a Total authorized issue, \$326,000; total required and issued, \$315,000.

^b Total authorized issue (to be approved by the President of the United States), \$5,000,000.

If all the moneys appropriated by the last session of the legislature for the year ending June 30, 1905, are expended and the contracts carried over from last period completed and paid, the estimated income for the same period will exceed the expenditures by \$232,976.26.

Assessable values of real estate and personal properties of the Territory of Hawaii for the year 1903.

	Real estate.	Personal property.
First taxation division.....	\$34,553,304	\$38,547,182
Second taxation division.....	10,039,514	5,389,519
Third taxation division.....	16,135,131	13,342,340
Fourth taxation division.....	5,409,126	6,396,566
Total for the Territory.....	66,137,075	63,675,607

FOREIGN CORPORATIONS.

The legislature of 1898 passed a foreign-corporation law and repealed all previous existing laws on that subject. The legislature of 1903 amended that law. The main condition of the 1898 law was that these corporations file their papers and pay a filing fee of \$50. This law has been partly enforced, but many foreign corporations have not filed their papers, and none has fulfilled the condition of the 1903 amendment, which required them, in addition to filing their papers, to pay an annual license fee of one-fourth of a mill on each dollar of authorized capital, and such license fee in no case to be less than \$150.

Up to date most of these corporations have filed their papers, and licenses to the amount of \$1,750 have been collected. One company, "The Pacific Hardware and Steel Company," was brought into court, and in the circuit court the decision was in favor of the corporation, on the ground that their agent was a traveling man and his method of doing business, selling from samples only, was decided to be interstate commerce.

This case has been appealed to the Territorial supreme court. Several other suits are now pending on this same law, but as each one presents a little different phase, each has to be fought out by itself.

Franchises granted by this government and the capitalized value of the companies operating under them.

[Franchises granted since annexation require the approval of the United States Congress.]

FRANCHISES.

	Present capital.
Hawaiian Tramways Company (foreign corporation).....	\$325,000.00
(Franchise granted for 30 years from Aug. 29, 1884, Chap. XXXIV, Session Laws of 1884, reenacted by Chap. XVIII, Session Laws of 1886. Franchise for 30 years from Sept. 19, 1886.)	
Oahu Railway and Land Company	4,000,000.00
(Franchise granted for 20 years from Sept. 11, 1888, Chap. LXII, Session Laws of 1888, reenacted by Chap. XXXI, Session Laws of 1890. Franchise for 50 years from Sept. 15, 1890.)	
Hawaiian Electric Light Company	500,000.00
(Franchise granted for 10 years from May 23, 1893. New franchise granted by the legislature of the Territory of Hawaii, Session Laws of 1903, approved Apr. 28, 1903, for 35 years and approved by United States Congress Apr. 21, 1904.)	

	Present capital.
Honolulu Rapid Transit and Land Company.....	\$1,000,000.00
(Franchise granted for 30 years by legislature of the Republic of Hawaii, Session Laws of 1898, approved July 7, 1898. Approved by United States Congress June 25, 1900.)	
Honolulu Gas Company (Limited)	200,000.00
(Franchise granted for 35 years by the legislature of the Territory of Hawaii, Session Laws of 1903, approved Apr. 15, 1903, and approved by United States Congress Apr. 21, 1904.)	
Franchise to maintain and operate a railroad in Kauai	
(Franchise granted for 30 years by the legislature of the Territory of Hawaii, Session Laws of 1903, approved Apr. 25, 1903. Not yet approved by Congress.)	

FRANCHISES GRANTED, NOT IN EXISTENCE, CONDITIONS BROKEN.

Franchise to Hamakua Water Company. (Franchise granted for 50 years by act of the legislature, Session Laws of 1890, approved November 14, 1890.)

Franchise to the Hawaiian Gas Company. (Franchise granted for 25 years by act of the legislature, Session Laws of 1890, approved November 14, 1890.)

Appropriations for legislative expenses from 1870 to 1903.

UNDER THE MONARCHY.

Session of—	
1870.....	\$15,000.00
1872.....	15,000.00
1874.....	16,362.15
1876.....	21,500.00
1878.....	16,500.00
1880.....	20,000.00
1882.....	
1884.....	40,000.00
1886.....	50,000.00
1887 (special)	10,000.00
1888.....	25,000.00
1890.....	35,000.00
1892 (lasting seven or eight months).....	42,000.00

UNDER THE REPUBLIC OF HAWAII.

Session of—	
1895 (special)	\$15,000.00
1896.....	26,300.00
1898 (actual expenses, \$28,562.14)	35,000.00

UNDER THE TERRITORY OF HAWAII.

Session of—	
1901 (actual expenses, \$94,654.94)	\$94,666.00
1903 (actual expenses, \$84,611.24)	87,471.30

Expenses of the legislature, special session, 1904.

Appropriation for "Expenses of the house of representatives of the legislature of the Territory of Hawaii in the special A. D. 1904 session"..... \$10,000.00

Expenditure:

Warrants drawn	\$9,795.59
Less the following warrants drawn contrary to the provisions of the appropriation bill—	
John H. Wise	\$240.80
Solomon Meheula	585.00
Paradise of the Pacific	634.20
D. H. Kahaulelio	105.84
W. J. Coelho	458.60
Enoch Johnson	240.80
Hawaiian News	21.25
	<hr/> 2,246.49

Total..... 7,509.10

Balance of appropriation for house of representatives..... 2,490.90

Appropriation for "Expenses of the senate in the special session of the legislature of the Territory of Hawaii of the year 1904" \$5,000.00

Expenditure:

Warrants drawn \$3,988.58

Less the following warrants returned to the government by the recipients because they did not serve during the session—

Cecil Brown \$200.00

H. P. Baldwin 200.00

Do 18.00

418.00

3,570.58

Balance of appropriation for the senate 1,429.42

Balance unexpended 3,920.32

Receipts and expenditures Territory of Hawaii, July 1, 1903, to June 30, 1904.

RECEIPTS.

General taxes.....	\$1,566,393.49
Road tax	114,806.00
Land sales	18,962.42
Licenses	131,355.00
Water receipts	118,433.47
Sundries (including inheritance tax, \$70).....	465,405.95

Total revenue receipts..... 2,415,356.33

Treasury notes..... 145,000.00

Cash balance July 1, 1903..... 73,181.63

Total..... 2,633,537.96

EXPENSES.

Outstanding warrants July 1, 1903.....	\$240,713.42
Departmental expenses July 1, 1903, to June 30, 1904..	2,658,458.41
Interest on public debt, commission, and expenses	85,811.69
Interest on treasury notes.....	2,300.00
Interest on registered treasury warrants	8,719.68
Balance of expenses of legislature, 1903	11,167.36
Expenses of legislature, special session, 1904.....	11,079.68
Transferred to "Road tax," special deposit	114,806.00
Transferred to "Land sales," special deposit.....	18,962.42
Treasury notes paid	145,000.00

3,297,018.66

Excess of expenses over the receipts..... 663,480.70

Outstanding auditor's warrants July 1, 1904..... \$709,014.31

Outstanding legislature warrants
 11,079.68 |

Cash balance July 1, 1904..... 56,613.29

Total..... 720,093.99 720,093.99

THE AUDITING DEPARTMENT.

By J. H. FISHER.

The auditing department in its present shape was established by the passage of act 39, Session Laws of 1898 of the legislature of the Republic of Hawaii, by which it was intended to be the general bookkeeping and accounting department of the government. In furtherance of this idea double-entry books are being kept in which are shown all of the receipts and expenditures of the Territory under their appropriate headings.

All officials of the government who receive public moneys in any sums whatever are classed as public accountants, and as such are required to pay weekly, or at such other times as may be specially appointed, into the treasury all sums received by them. In return they receive two receipts signed by the treasurer, one of which is stamped across its face "original," and the other "duplicate." These are of no value until presented to the auditor, who countersigns the original and files the duplicate after writing across its face the date of receipt by him. This duplicate receipt is the authority of the auditor for charging the treasurer and crediting the proper account for the amount deposited.

All public accountants are required, not later than the 10th of the following month, to transmit to the auditor a sworn statement, on a form known as Schedule E, of all moneys received by them during the previous month.

Excepting moneys paid for the redemption of government bonds and the interest or coupons on the same, and for interest on overdue or registered warrants, drafts against "special deposits," and for expenses of the legislature, no money is paid out by the treasurer except upon warrants drawn by the auditor and made payable to the order of the parties to whom the government is directly indebted.

Permanent settlements and specific salaries are paid by warrants drawn by the auditor on the approval of the heads of departments, and a receipt for the specific salary is taken therefor bearing the number of the warrant by which it is paid.

Purchases for the government are made by proper department employees on the approval of the department chief, bills for the same being rendered on the voucher forms supplied by the Territory, and are certified by the government officer receiving the same, and approved by the heads of departments. These vouchers are grouped together according to appropriations and sent to the auditor by the 10th of each month.

Payments are made by the auditor drawing warrants for each voucher, stamping the same with the warrant number, and delivering the warrant on obtaining receipt to the voucher.

Payments under contract are made in the same manner on vouchers.

The auditor is required to make, from time to time, systematic and thorough inspection of all public accounts, and make a record of such inspection for the purpose of establishing and continuing a uniform system of keeping accounts and enforcing the same.

In case of any difference between the auditor and any of the department heads regarding the proper appropriation to which any item should be charged, or any matter regarding the construction of the "audit act," or when any amount shall be disallowed by the auditor for the reason of imperfect vouchers or incorrect certificate, or if any person or public accountant feel aggrieved by the decision of the auditor in the rejection or surcharge of the returns, or refusal to approve or allow any demand presented by such person or public accountant, any parties concerned may appeal from said decision to the justices of the supreme court, who, after investigation, may make an order directing the relief of the appellant in whole or in part.

The auditor is required to publish in a newspaper monthly and annual statements of the finances of the Territory. He is further required to make an annual report to the governor and a biennial

report to the legislature, with authority to make recommendations for the better care, custody, and payment of the public moneys, and any improvements in the mode of keeping public accounts, etc.

He is further authorized and empowered, by precept under his hand, to require such persons as he may think fit to appear personally before him and to produce such books and papers and accounts in their possession or control as may be necessary for the purpose of examination, and may administer oaths for such purposes. Any person willfully and corruptly giving false testimony incurs the same penalties as are or may be provided against persons convicted of perjury.

Any public accountant or person who shall fail or neglect to conform to any of the regulations contained in the act, or to attend for the purpose of examination, shall be liable to a penalty of not less than \$25 nor more than \$100, on conviction before any district magistrate. Provision is made in the act for the registration of warrants by the treasurer and the allowance of 5 per cent interest on all warrants so registered when there is not sufficient moneys applicable for payment on presentation. When funds again come into the treasury, payment is made by the treasurer in the order of registration, after publication of notice in the newspapers, interest ceasing on all called warrants ten days after date of publication.

Unless otherwise provided, all appropriations made by the legislature for the public service for any biennial period, and not expended during such period, lapse unless a contract shall have been made before the expiration of such period by which a liability to issue and apply the same shall have been incurred, and a certified copy of such contract shall have been deposited with the auditor.

Upon the whole the act works smoothly, and with a few minor changes or additions, which can be made by the legislature, seems to meet the requirements.

The force of the office consists of the auditor, with an annual salary of \$3,600; the deputy auditor, at \$2,400; a bookkeeper, at \$2,100; three clerks with salaries of \$1,500, \$1,380, and \$1,320, respectively; and this staff is barely adequate to keep up with the work.

In March of the present year the chief clerk of the waterworks department was discovered to be a little over \$2,800 short in his accounts. He was promptly arrested and indicted by the grand jury and is now awaiting trial. Suit has also been entered against his bondsmen.

In May of the present year a shortage was discovered in the office of the land commissioner, which, upon investigation going back to 1899, was found to amount to about \$33,000. Mr. E. S. Boyd, land commissioner, and his chief clerk were both arrested and indicted by the grand jury, and now await trial. Neither of these persons was under bonds, and, as they have no assets that can be levied on, the Territory will undoubtedly lose the whole of the amount.

In the latter case the commissioner and his clerk have been working in collusion for a long time and were systematically either giving other than officially numbered receipts for collections, or were making out receipts leaving the stub blank, and afterwards filling in the stub with the name and amount of an earlier stealing.

In the waterworks much the same method was adopted, but it had continued only for a short time, and was entirely confined to receipts for water delivered to shipping in the harbor, which does not appear on

the rate book under a privilege number. The chances for further embezzlements in this manner are lessened by having the superintendent provide a meter through which all water is delivered to vessels, a means by which the deliveries can be checked.

In the land department, after a thorough study of the needs of the office, there has been made a considerable change in the system of keeping the accounts which will more readily assist in discovering shortages.

It is almost impossible to devise systems to prevent one from stealing if he is bent on doing so. Sooner or later he can be detected and prosecuted, and the best safeguard to the Territory is rigid prosecutions. The auditor recommended to the legislature of 1903 "that all officers and clerks of the Territory be required to furnish sufficient bonds of some reliable fidelity insurance company." These bonds are preferable to those of private individuals, in that such companies have a reputation for following up and prosecuting transgressors.

The revenues of the Territory since annexation have not been sufficient to meet the expenditures, as shown by the following comparative statement of the receipts and expenditures from the time of annexation to the present date. This is due mainly to two reasons, the first being caused by the loss of revenue by the taking over the customs bureau and the post-office by the Federal Government, and secondly, by the neglect of the legislature to keep the appropriation bills to a figure somewhere near the estimated receipts of the Territory.

The excess of disbursements over receipts for the year 1900-1901 was also in part made up by expenditures on account of the bubonic plague which occurred in the first half of the year 1900, the total amount paid out on this account, directly and indirectly, amounting to \$807,008.66.

The loss of the revenues mentioned above are partly made up by the increased receipts of the taxes, which grew from \$1,215,325.91 in 1900-1901 to \$1,681,199.49 in 1903-4.

Receipts and disbursements of Hawaii.

Fiscal year.	Receipts.	Disbursements.	Excess of disbursements.
1900-1901.....	\$2,140,297.36	\$2,576,685.53	\$436,388.17
1901-2.....	2,473,172.81	2,382,968.90	a 90,203.91
1902-3.....	2,387,715.88	2,603,194.20	215,478.32
1903-4.....	2,415,356.33	2,844,054.81	428,698.48

a Excess of receipts.

Comparative statement of taxes collected for each fiscal year since annexation.

	1900-1901.	1901-2.	1902-3.	1903-4.
Real estate.....	\$444,059.63	\$532,637.09	\$560,456.31	\$618,890.81
Personal property.....	490,392.69	571,248.69	592,325.37	607,589.82
Insurance.....	3,223.65	3,846.00	4,685.11	4,623.38
Dogs and tags.....	4,135.86	4,325.19	4,787.60	4,484.80
Poll.....	49,922.00	46,299.00	51,009.00	48,148.00
Road (including carriages, carts, and drays).....	114,459.50	108,861.00	119,822.00	114,806.00
School.....	99,838.00	92,592.00	102,016.00	96,296.00
10 per cent penalties.....	7,699.43	9,586.27	9,359.81	12,011.82
Costs.....	1,586.15	1,525.05	1,465.65	1,806.70
Income.....		287,366.80	205,096.00	172,542.16
Total.....	1,215,325.91	1,658,107.09	1,651,023.12	1,681,199.49

THE JUDICIARY DEPARTMENT.

By W. F. FEAR.

The first four-year period in the history of this Territory has just come to a close, and with it important changes have taken place in the Territorial judiciary. Alfred S. Hartwell and Francis M. Hatch succeed Clinton A. Galbraith and Antonio Perry as associate justices of the supreme court, and A. N. Kepoikai, John A. Matthewman, and C. F. Parsons succeed John W. Kalua, W. S. Edings, and Gilbert F. Little, respectively, as judges of the second, third, and fourth circuit courts.

The courts of Hawaii correspond with the courts in the States rather than the courts in the other Territories. There is a United States district court, which has also the jurisdiction of United States circuit court, and there are distinct Territorial courts. The latter are in general a supreme court, consisting of a chief justice and 2 associate justices, 5 circuit courts, each presided over by a circuit judge, except that the first circuit court has 3 judges, and 29 district courts held by district magistrates. Cases may be taken from the supreme court, as from the State supreme courts, only to the Federal Supreme Court on writ of error and only when Federal questions are involved. The jurisdiction of the supreme court is mostly appellate. Cases are brought to it by appeal, writ of error, or exceptions. It holds one term a year, beginning the first Monday in October and continuing until final adjournment the following summer. The circuit courts have general original jurisdictions; also appellate jurisdiction in cases from the district courts. They hold, as a rule, three terms a year, varying in length from a few weeks to four months. The district courts have jurisdiction of misdemeanors and, with some exceptions, of civil cases in which the amount involved does not exceed \$300. They hold no terms, but sit continuously. Besides these courts of a general nature there are other courts or tribunals of a special nature, among which special mention may be made of the commissioner of private ways and water rights.

A year ago there seemed to be a growing sentiment that the number of the supreme court justices should be increased to five. The increase in the number of cases brought to that court seemed to call for an increase in the membership of the court in order to enable it to keep up with its work, but various changes that have taken place in legislation and otherwise afford ground for belief that this difficulty will be overcome to some extent at least in the near future. There are other reasons, however, which have not been overcome, but which alone perhaps might not at present be deemed sufficient to require an increase in the number of justices. A decision by a bench of five is naturally more satisfactory than one from a bench of three, especially if one of the justices dissents. An increase to five would also to some extent meet the argument for allowing appeals in cases in which Federal cases are not involved, or, if such appeals should be allowed, it would reduce the number of such cases in which appeals would be taken. The expense and delay that would result from such appeals, owing, among other things, to the distance from Washington, or even from California, is something that should be avoided as far as possible.

The appropriations for salaries and expenses in the judiciary department have been reduced in line with the general policy of retrenchment in view of the financial stringency in the Territory, but it is doubtful if this will operate to an appreciable extent in diminishing the efficiency of the judiciary, although it will impose heavier burdens on some officials and work more or less hardship on others.

As a rule the courts are either up to date or not far behind in their work. In the first circuit court in particular much has been accomplished toward the relief of the calendar which was so congested a year ago. This has been brought about through almost continuous sessions of three judges trying jury and other cases, and was made possible mainly through legislation enacted by the last legislature. As a result, largely of the great number of cases so tried in the first circuit court, the calendar of the supreme court has gained somewhat on that court. There is reason to believe, however, that this court, and all the courts of the Territory, will be up to date in their work at no very distant time.

An additional court was added to the courts of record of the Territory by the last legislature, namely, the court of land registration.

This court has been in operation during the past year, though thus far it has had comparatively few cases.

Several much-needed changes have been made recently in the courthouse in Honolulu, especially in the construction of a vault for the records of the supreme court and first circuit court and in the rearrangement of the clerk's offices and the library. There is need of new courthouses in several of the other circuits, the erection of which it is hoped will not be long delayed. Many volumes have been added to the supreme court and circuit court libraries during the past year.

The statistics of the judicial work of the courts are made up for the calendar years. It has been customary in the past to prepare the summaries for periods of two years for the biennial sessions of the legislature. Hereafter they will be prepared yearly. The following will give a general idea of the number and character of the cases, both civil and criminal, and the nationality of the convicted in criminal cases. There are of course some duplications owing to appeals from one court to another, and in some instances to a third court. In general, there has been a slight falling off in the number of cases during the past year as compared with the number during the preceding two years.

LIQUOR SELLING AND DISTILLING.

	1896-97.	1898-99.	1900.	1901-2.	1903.
Total convictions.....	375	258	116	317	138
Total arrests.....	623	461	205	518	234

GAMBLING.

	1896-97.	1898-99.	1900.	1901-2.	1903.
Chinese	1,577	2,096	945	2,241	904
Japanese	971	844	538	2,201	862
Portuguese	11	18	23	89	101
Hawaiians	258	429	220	470	82
Others	44	32	19	116	108
Total convictions	2,861	3,419	1,745	5,097	2,057
Total arrests.....	4,146	4,358	2,060	6,209	3,207

OFFENSES AGAINST THE PEACE.

Of affrays, riots, assaults and batteries of all kinds the cases were as follows:

	1896-97.	1898-99.	1900.	1901-2.	1903.
Arrests	2,092	2,461	1,231	3,096	1,472
Convictions	1,208	1,475	668	1,900	831
			1899-1900.	1901-2.	1903.
Total civil cases			7,196	5,056	2,907
Total criminal cases (persons charged)			18,849	21,752	10,059
Total			26,045	26,808	12,966

CASES IN SUPREME, CIRCUIT, AND DISTRICT COURTS.

Supreme court	136	220	84
Circuit court	2,888	3,198	1,385
District courts	23,272	22,996	11,439
Naturalizations	249	394	58
Total	26,045	26,808	12,966

NATIONALITY OF CONVICTED.

	1898-99.	1900.	1901-2.	1903.	Popula- tion, 1900.	Percentage.	
						1901-2.	1903.
Chinese	3,940	1,919	3,302	1,331	27,767	0.128	0.0516
Japanese	1,932	1,480	4,716	2,088	61,111	.077	.034
Portuguese	572	898	963	454	15,675	.061	.0281
Hawaiians	3,294	1,808	3,845	1,527	37,918	.101	.0972
Others	1,859	1,664	3,372	1,313	13,530	.240	.0972
Total	11,097	7,269	16,198	7,708	154,001	.105	.0435

DRUNKENNESS.

	1896-97.	1898-99.	1900.	1901-2.	1903.
Chinese	19	10	6	9	4
Japanese	160	134	115	363	154
Portuguese	86	92	105	201	91
Hawaiians	1,009	1,053	794	1,439	573
Others	588	789	1,163	1,763	615
Convictions	1,862	2,078	2,183	3,775	1,437
Arrests	2,008	2,192	2,281	3,950	1,517

OFFENSES AGAINST CHASTITY.

Of adultery, fornication, incest, polygamy, rape, seduction, and sodomy, the cases were as follows:

	1896-97.	1898-99.	1900.	1901-2.	1903.
Chinese					13
Japanese					96
Portuguese					7
Hawaiians					74
Others					40
Convictions	397	267	138	432	229
Arrests	593	414	207	736	347

OFFENSES AGAINST PROPERTY.

Of larceny, robbery, burglary, embezzlement, felonious branding, extortion, forgery, counterfeiting, gross cheat, and receiving stolen goods, the cases were as follows:

	1896-97.	1898-99.	1900.	1901-2.	1903.
Arrests	945	979	531	1,128	594
Convictions	506	444	243	566	304

HOMICIDES.

The cases of manslaughter were as follows:

	1896-97.	1898-99.	1900.	1901-2.	1903.
Arrests	16	13	9	12	5
Convictions	4	8	6	5	4

The cases of murder were as follows:

	1896-97.	1898-99.	1900.	1901-2.	1903.
Arrests	42	7	6	35	8
Convictions	7	4	3	11	4

MISCELLANEOUS.

	1896-97.	1898-99.	1900.	1901-2.	1903.
Arrests	5,290	5,189	3,528	6,068	2,664
Convictions	3,136	3,144	2,167	4,294	1,704

SUMMARY OF ARRESTS.

	1896-97.	1898-99.	1900.	1901-2.	1903.
Drunkenness	2,008	2,192	2,281	3,950	1,511
Liquor selling and distilling	623	461	205	518	234
Gambling	4,146	4,358	2,060	6,209	3,207
Offenses against chastity	593	414	207	736	347
Offenses against property	945	979	531	1,128	594
Offenses against the peace	2,092	2,461	1,231	3,096	1,472
Homicides	58	20	15	47	13
Miscellaneous	5,290	5,189	3,528	6,068	2,675
Total	15,755	16,074	10,068	21,752	10,069

SUMMARY OF CONVICTIONS.

	1896-97.	1898-99.	1900.	1901-2.	1903.
Drunkenness	1,862	2,078	2,183	3,775	1,437
Liquor selling and distilling	375	258	116	317	188
Gambling	2,861	3,419	1,745	4,898	2,057
Offenses against chastity	397	267	138	432	229
Offenses against property	505	444	243	566	304
Offenses against the peace	1,208	1,475	668	1,900	831
Homicides	11	12	9	16	8
Miscellaneous	3,136	3,144	2,167	4,294	1,704
Total	10,355	11,097	7,269	16,198	6,708

FEDERAL LAW WORK.

By ROBERT W. BRECKONS.

During the early part of the year the local officers of the United States district attorney's department became convinced of the existence within the Territory of some kind of an organization whose operations were resulting in the importation of women from Japan for the purpose of prostitution, and in many instances in the holding of them to a condition of slavery within the Territory. Systematic and persistent work finally resulted in the unearthing of everything connected with this organization. Ample evidence was secured, showing the methods employed by the organization, and the names and addresses of the members, about 75 in number. During the year all of the members were indicted, and about two-thirds of them convicted and punished, their sentences ranging from four to eighteen months. The prosecution in these cases was not directed so much toward the suppression of prostitution as against the importation of women into the United States for the purpose of prostitution, and the holding of women to slavery.

A kindred class of cases handled during the year related to the sale by male Japanese of their wives to other Japanese. Many instances were unearthed in which Japanese husbands had, by written bill of sale, made direct transfers of their wives. In almost every case discovered, indeed, there was discovered also a written bill of sale, the document being nearly always couched in legal phraseology, resembling quite closely the usual form of bill of sale of chattels in use in the United States.

In both classes of cases above referred to, the sentences inflicted were comparatively lenient. Their prosecution among the Japanese was treated by the department as more or less educational in its nature. In nearly all of the cases it appeared that the practices indulged in by the Japanese were not considered by them as particularly criminal in their nature. Most of the defendants came into court and frankly admitted all of the facts, stating, however, that they were not aware of the existence of any law in the United States making these practices unlawful.

The prosecutions have had, in my judgment, a most beneficial effect. Several of the Japanese newspapers published in Honolulu have contained full accounts of the proceedings, and the entire Japanese population have by this time become fully acquainted with American laws on the subject.

LEGISLATIVE FINANCES.

Another quite important piece of work concluded by the department during the year in question related to the records of the legislature of the Territory of Hawaii. For some time prior to the assembling of the October, A. D. 1903, grand jury, it was publicly stated that all of the vouchers relative to the expenditure of money by the legislature of the Territory for the year 1903 had been either destroyed or concealed. When the grand jury met in October a thorough investigation was made of the matter. The vouchers were finally discovered, and unquestionably showed a very loose condition of affairs in so far

as money matters were concerned. The grand jury returned two indictments against the clerk of the legislature. Judge Dole, of the Federal court, in passing on demurrers to the indictments, held that all of the documents relating to the Territorial legislature are public records within the meaning of the statute of the United States of America. The clerk was tried on one of the indictments, and convicted. Subsequently, on account of error occurring during the trial, he was granted a new trial. This second trial will take place in October. The investigation resulted also in an investigation being made by the Territorial grand jury; several indictments and two convictions followed.

The importance of this work arises from the fact that it establishes the doctrine that records of the Territorial legislature are public records within the meaning of the act referred to. There is but little doubt that in the future money will be expended by the Territorial legislature as it should be—that is, publicly, and without any attempt at concealment.

During the year several cases of embezzlement of public funds have arisen and have been prosecuted. The prompt detection and speedy punishment meted out in these cases will unquestionably prove beneficial. The United States of America does not tolerate the idea that restitution of public money embezzled secures immunity from punishment. In some of the cases prosecuted it was apparent that a contrary idea prevailed.

ENFORCING NAVIGATION LAWS.

Considerable time was also taken up during the year with the enforcement of navigation laws. As is well known, there are many acts of the Congress of the United States framed for the protection of sailors. It has been the endeavor of the department to see that all of these laws be enforced, and I think it may safely be said that shipping masters and others have come to understand that navigation laws are not a dead letter, and they are endeavoring to comply with them as far as possible.

INTERNAL-REVENUE LAWS.

Many infractions of the internal-revenue laws of the United States have been discovered and punished. Most of these cases arose out of a section of the Revised Statutes of the United States punishing illicit distilling. The majority of the offenders were Japanese. The records of the court, however, by no means disclose all of the work done here relative to internal-revenue laws. A peculiar feature of the internal-revenue laws of the United States is that compromises of criminal as well as of civil cases are permitted. Following out his ideas on the subject—ideas which are fully supported by his superiors in Washington—the internal-revenue collector, Mr. Roy H. Chamberlain, has settled by compromise many criminal cases. The internal-revenue laws are quite complex, and not easily understood or appreciated without a close and thorough study of and long acquaintance with them. In every case where the infraction of the law has arisen from ignorance most reasonable compromises have been arranged.

INFRACTION OF CUSTOMS LAWS.

A few cases of infractions of the customs laws have been discovered and prosecuted. It is only fair to the people of the Territory, however, to say that a comparison between the port of Honolulu and other ports of the United States shows the percentage of smuggling, or attempted smuggling, to be very small here.

This report should not be closed without saying a word relative to the class of juries secured in the Federal court, and to the feeling of the people of the Territory toward the United States and its laws, as shown by the actions of juries in the Federal court. Our juries have been made up of Hawaiians, of native-born Americans, and of naturalized Americans. No matter what the make-up of the jury, however, in every instance it has been found that they are willing and anxious to arrive at a proper verdict. During the year referred to not a single instance of a juror questioning in the slightest degree the wisdom of any law of the United States of America has been encountered, or refusing to assist in the punishment of its violation because the law was new to him or it did not meet with his approval. In short, judging from the action of the juries in the Federal court, it appears evident that the people of the Territory of Hawaii are satisfied with annexation, and believe in upholding all of the laws of the United States within the Territory.

ATTORNEY-GENERAL'S DEPARTMENT.

By LORRIN ANDREWS.

The legislature in 1903 passed a law increasing the number of circuit court terms on the islands outside of Oahu, it being the expectation that as the county act then passed would go into force on the 1st day of January, 1904, the additional work of representing the Territory at these added terms would not fall upon the attorney-general's office, but upon the new county attorneys. The immediate result, however, was to increase the work of this department.

Between the last of September, 1903, and the 30th of June, 1904, there have been thirteen circuit terms held, at which 196 criminal cases have been tried and disposed of, resulting in 131 convictions and 65 acquittals; and to this should be added the work of the various grand juries and the prosecution of offenders charged with misdemeanors.

In addition to this jury work, the attorney-general's office has argued 28 cases in the supreme court, 19 of which have been decided in favor of the Territory, and has tried 37 civil cases for the Territory.

Mr. Dole, in his report for the period ending December 31, 1902, recites that in two and one-half years he had rendered 341 legal opinions to the departments. Since February 1, 1903, and up to June 30, 1904, the attorney-general's office has rendered 439 opinions to the various departments and to the legislature, of which 287 were rendered within the period covered by this report. In addition thereto, within the last year the attorney-general's office has had 654 oral consultations with heads of departments, and has drawn for their use 87 agree-

ments, contracts, leases, and other legal papers. In addition to these matters, the attorney-general's office for the first time in many years has, at the request of the treasurer, handled suits for delinquent taxes on the Island of Oahu.

COUNTY-ACT LITIGATION.

Shortly after the adjournment of the legislature which, by the passage of a county act, changed in toto the government of the Territory of Hawaii from a centralized appointive government to local government on each island which was entirely elective, the question arose as to the legality of the proposed change which was to go into effect on the 1st of January, 1904. Mr. Henry E. Cooper, as superintendent of public works, objected to the transfer of certain property under his department to a Territorial board created by the county act. A test case was brought in the shape of a mandamus directed against Mr. Cooper by the aforesaid Territorial board. The supreme court of Hawaii, however, upheld Mr. Cooper, and declared such portions of the county act affected by this suit to be unconstitutional. This decision raised further disquietude as to the validity of the act, but an election was held under the act in November, 1903, and, following that election, a contest was entered by several defeated candidates who raised technical points in connection with the construction of the act.

This contest was, however, defeated before the supreme court, the attorney-general representing the board of election. Upon the inauguration of the county government, however, on January 1, 1904, funds were found to be unavailable to carry on county government without resorting to credit until the taxes could be collected, and, owing to the distrust with which that act was then regarded by the business community, difficulty was encountered in raising such funds. As a result thereof, a test case was prepared between the Territory of Hawaii and the supervisors of Oahu, in which the Territory, by quo-warranto proceedings, challenged the validity of the county act and the election of the supervisors under the act, and on January 13, 1904, the supreme court of the Territory of Hawaii decided that the whole county act was invalid and void. Fortunately for the Territory, the system had been in operation for such a short time that there was little or no difficulty in returning to the old form of government, which from that time has been the legal form of government of the Territory of Hawaii.

THE FISHERY CASES.

When the organic act creating a government for the Territory of Hawaii was passed by the Fifty-sixth Congress, it contained the following sections:

REPEAL OF LAWS CONFERRING EXCLUSIVE FISHING RIGHTS.

SEC. 95. That all laws of the Republic of Hawaii which confer exclusive fishing rights upon any person or persons are hereby repealed, and all fisheries in the sea waters of the Territory of Hawaii not included in any fish pond or artificial inclosure shall be free to all citizens of the United States, subject, however, to vested rights; but no such vested right shall be valid after three years from the taking effect of this act unless established as hereinafter provided.

PROCEEDINGS FOR OPENING FISHERIES TO CITIZENS.

Sec. 96. That any person who claims a private right to any such fishery shall, within two years after the taking effect of this act, file his petition in a circuit court of the Territory of Hawaii, setting forth his claim to such fishing right, service of which petition shall be made upon the attorney-general, who shall conduct the case for the Territory, and such case shall be conducted as an ordinary action at law.

That if such fishing right be established, the attorney-general of the Territory of Hawaii may proceed, in such manner as may be provided by law for the condemnation of property for public use, to condemn such private right of fishing to the use of the citizens of the United States upon making just compensation, which compensation, when lawfully ascertained, shall be paid out of any money in the treasury of the Territory of Hawaii not otherwise appropriated.

Upon the last-named section some 82 suits were filed in the Territory of Hawaii by persons claiming vested rights to large tracts of water encircling the various islands. Trials were had, and the supreme court of the Territory of Hawaii held in two test cases that the owners claiming vested rights were incorrect, and that they held no such rights as mentioned in the organic act. From this decision Mr. S. M. Damon appealed to the Supreme Court of the United States upon a writ of error, and the case was argued before that tribunal in April, 1904. The decision of that court was a reversal of the decision of the supreme court of the Territory, and a statement that in this particular class of cases the parties in interest had vested rights in fisheries. Immediately following that decision, the Territory attempted to bring all of these suits to trial, but, owing to excuses by counsel representing the various owners, has not yet succeeded in disposing of any more of these cases.

THE INFAMOUS-CRIME DECISION.

At the September, 1903, term of the circuit court of the first judicial circuit the question was raised, in the case of the Territory of Hawaii v. Wa Sin, charged with the offense of selling poisonous drugs without a license, the penalty for which offense was a monetary fine which, if not paid, subjected the defendant to imprisonment at hard labor until it was worked out according to statute, whether or not all criminal offenses, felonies, and misdemeanors under the statutes of Hawaii were not infamous crimes. George D. Gear, second judge of the court before whom the point was argued and submitted, held that all offenses within the Territory of Hawaii were infamous crimes, and before a defendant could be put upon his trial it was necessary that he be duly and legally indicted by the grand jury, whether he be charged with a felony or misdemeanor. The effect of this decision was most drastic, requiring the attorney-general's office to not only perform its ordinary functions of presenting felonies for the consideration of the sitting grand jury, but of presenting every case, no matter how petty, in which a person was charged with crime, to the consideration of the inquisitorial body, or else of seeing the defendant, convicted in the district court, discharged in the circuit court. Therefore, where formerly a grand jury sat one or two weeks in a term, it was kept in session throughout the entire term of court. Fortunately, District Magistrate Alexander Lindsay, jr., showed rare judgment and tact, proceeding as far as possible under the old practice, and, therefore, only upon appeals from his decisions were indictments made necessary. The Territory, not being allowed by statute an appeal where a consti-

tutional question was involved, as is often allowed in other States and Territories in the Union, was forced and compelled to await such time as the question could properly be brought up by a person claiming to be illegally imprisoned and restrained of his liberty, and it was not until five months after the decision in the Wa Sin case that the question was presented before the circuit court of this circuit, upon the application for a writ of habeas corpus by one Goto. Upon the hearing Goto was discharged by Judge Gear, on the ground that he had not been indicted for a misdemeanor, and thereupon a writ of error was sued out by this department from the supreme court of the Territory, before which tribunal the question is now pending.

In view of the foregoing, should the supreme court of this jurisdiction affirm the decision of Judge Gear, necessary legislation will be suggested to the next legislature to remedy the defect in the law, as only by such legislation will it be possible to handle the criminal business of this Territory in a proper manner.

THE POLICE DEPARTMENT.

By A. M. BROWN.

The police administration of this Territory is most broad and comprehensive in its scope and duties.

HIGH SHERIFF.

The high sheriff, appointed by the governor with the approval of the senate, is the chief of police of the Territory, and has, subject to the supervision and control of the attorney-general, the supervision and control of the sheriffs and subordinate officers throughout the Territory.

It is the duty of the high sheriff and of the several sheriffs and deputy sheriffs, within their respective jurisdictions, to preserve the public peace, to have charge of all jails and prisons, to safely keep all persons committed to their charge, to execute all lawful precepts and mandates directed to them by any judge or court, to arrest fugitives from justice as well as all criminals and violators of the laws.

DEPUTY SHERIFFS OF THE TERRITORY.

The law provides for the appointment by such high sheriff of two deputies, who are authorized to do or perform any act or thing required by law to be done or performed by such high sheriff.

SHERIFFS OF ISLANDS.

The islands of Hawaii, Maui, Molokai, Lanai, and Kahoolawe (the four latter being all under one jurisdiction), and Kauai have each a sheriff, appointed by the high sheriff with the approval of the attorney-general, who has the care, supervision, and control of the police within their respective jurisdictions, subject to the superior control of the high sheriff and the attorney-general.

DEPUTY SHERIFFS OF DISTRICTS.

Sheriffs of islands, in turn, have the appointment, subject to the approval of the high sheriff, of a deputy sheriff and such police officers as the needs of the different judicial districts of their island require.

DUTIES OF SHERIFFS AND DEPUTY SHERIFFS AS PROSECUTING ATTORNEYS.

It is one of the duties of the sheriffs and deputy sheriffs to appear and prosecute before the district magistrate in their respective districts all criminal cases, whether they be cases within the jurisdiction of such district magistrates to hear and determine (to-wit, cases where the maximum penalty does not exceed one year) or cases where the penalty exceeds one year, which come before such district magistrate for hearing and committal to the circuit court for trial by jury.

These duties require a high standard of intelligence and legal ability on the part of such sheriffs and deputies.

ISLAND OF OAHU.

At Honolulu, the capital of the Territory, is located the headquarters of the police department and the offices of the high sheriff and his two deputies. Arthur M. Brown, an Hawaiian, born of American parentage, appointed June 14, 1900, is the present high sheriff. Charles F. Chillingworth, an Hawaiian, appointed June 14, 1900, holds the position of first deputy sheriff. Albert McGurn, an Hawaiian, appointed June 14, 1900, holds the position of second deputy sheriff.

The uniformed police force of Honolulu consists of 45 foot police, together with 15 mounted officers and such special police, detectives, and clerks as the work of the department requires.

From the days of the monarchy the rank and file of the foot police in Honolulu, as well as in outlying districts, have been drawn from the native Hawaiians, who have proved themselves most efficient for this class of work. They are almost without exception men of large physique, quiet and sober in their habits, well educated under the splendid school system of this Territory and most amenable to discipline.

The uniform of these officers consists of a dark-blue blouse, white duck trousers, and dark-blue helmet, together with regulation police buttons, club, and belt.

Owing to the extended area of Honolulu a mounted force is necessary to properly police the outlying portions of the city. This force of 15 men, under the immediate control of Lieutenant Leslie, is a valuable adjunct to the force.

The officers are uniformed and the horses equipped after the style of United States cavalry. They receive a monthly pay of \$95, and are required to furnish their own horses and equipment and maintain the same.

Both foot and mounted police are thoroughly drilled in military tactics and the use of firearms, Springfield rifles being used by the foot police and Winchester .45-.70 carbines by the mounted police. Weekly practice at target shooting has brought this force to a high degree of efficiency in marksmanship.

The good results of such training was shown a few months ago when about 1,800 Japanese laborers on the Oahu sugar plantation, about 12

niles from Honolulu, went on a strike and threatened violence to the nanager and his assistants. Fifteen mounted officers and 30 foot police, uniformed, armed, and prepared for any emergency, were soon it the plantation and the strikers dispersed. The police remained on luty for two days, when the strikers, realizing that their unjust demands would not be met, returned to work.

This is cited only as an example of what a few men in uniform, thoroughly trained and determined, can accomplish against an unorganized mob.

The sheriffs, deputy sheriffs, and police in the districts outside of Honolulu are uniformed in khaki, similar to the uniform of the United States Army.

Following is a brief statement of the strength of the police force throughout the Territory and the monthly rate of pay received.

HONOLULU.

Police headquarters:

High sheriff	\$250.00
First deputy sheriff	200.00
Second deputy sheriff	150.00
Senior captain	150.00

First watch:

Captain	85.00
Lieutenant	75.00
12 officers	each.. 70.00

Second watch.

Same as first watch.

Third watch.

Same as first watch.

Mounted police.

Lieutenant	115.00
15 officers	each.. 95.00
3 clerks, receiving station	do.. 90.00
3 turnkeys	do.. 85.00
3 patrol wagon drivers	do.. 80.00
2 court officers	do.. 80.00
2 Chinese officers	do.. 60.00
2 Japanese officers	do.. 60.00
2 detectives	do.. 100.00
8 special police	do.. 75.00
Physician, receiving station	100.00

KOOLAUPOKO.

Deputy sheriff	75.00
2 officers	each.. 40.00
Jailer	40.00

KOOLAULOA.

Deputy sheriff	75.00
2 officers	each.. 40.00
Jailer	40.00

WAIALUA.

Deputy sheriff	75.00
2 officers	each.. 40.00
Jailer	40.00

WAIANAË.

Deputy sheriff	75.00
2 officers	each.. 40.00
Jailer	40.00

EWA.

Deputy sheriff	\$100.00
4 officers	each.. 40.00
Jailer	40.00

POLICE CALL-BOX SYSTEM.

The city of Honolulu is equipped with 100 Gamewell police-call boxes, which form a very valuable adjunct to the force, enabling officers on duty to be in constant touch with police headquarters.

PATROL WAGON.

At police headquarters, in Honolulu, is stationed an up-to-date rubber-tired patrol wagon with two pairs of horses, one team for day duty, another for night service. This wagon is used for the transportation of prisoners as well as an ambulance for injured persons.

ISLAND OF HAWAII.

The sheriff of the Island of Hawaii, L. A. Andrews, an Hawaiian born of American parents, was appointed June 14, 1900.

Each of the eight judicial districts on this island is presided over by a deputy sheriff appointed as heretofore mentioned with police officers under each of such deputies.

Police headquarters on this island are located at Hilo, the monthly rate of pay being as follows:

Sheriff	\$200.00
Sheriff's clerk	100.00

SOUTH HILO.

Deputy sheriff	150.00
2 captains	each.. 75.00
2 lieutenants	do.. 60.00
18 officers	do.. 50.00
Jailer	80.00
Deputy jailer	50.00
4 guards	each.. 30.00

NORTH HILO.

Deputy sheriff	70.00
2 officers	each.. 40.00

KAU.

Deputy sheriff	80.00
2 officers	each.. 40.00
Jailer	40.00

PUNA.

Deputy sheriff	60.00
4 officers	each.. 40.00
Jailer	40.00

ISLAND OF MAUI.

The sheriff of this island, L. M. Baldwin, an Hawaiian born of American parents, was appointed June 14, 1900.

Each of the five judicial districts of this island is presided over by a deputy sheriff and police officers.

Police headquarters on this island are located at Wailuku, and the monthly rate of pay is as follows:

Sheriff	\$187.50
Sheriff's clerk	80.00
WAILUKU.	
Deputy sheriff	125.00
Captain	60.00
10 officers	each.. 50.00
Jailer	75.00
2 deputy jailers	each.. 50.00
Jailer	40.00
HAMAKUA.	
Deputy sheriff	80.00
Captain	50.00
4 officers	each.. 40.00
Jailer	40.00
SOUTH KOHALA.	
Deputy sheriff	75.00
2 officers	each.. 40.00
Jailer	40.00
NORTH KOHALA.	
Deputy sheriff	80.00
4 officers	each.. 40.00
Jailer	40.00
NORTH KONA.	
Deputy sheriff	80.00
4 officers	each.. 40.00
Jailer	40.00
SOUTH KONA.	
Deputy sheriff	80.00
2 officers	each.. 40.00
Jailer	40.00
MAKAWAO.	
Deputy sheriff	80.00
Captain	50.00
4 officers	each.. 40.00
Jailer	40.00
LAHAINA.	
Deputy sheriff	80.00
4 officers	each.. 40.00
Jailer	40.00
HANA.	
Deputy sheriff	80.00
2 officers	each.. 40.00
Jailer	40.00
KIPAHULU.	
Deputy sheriff	40.00
2 officers	each.. 30.00
Jailer	35.00

ISLAND AND DISTRICT OF MOLOKAI.

Deputy sheriff.....	\$60.00
4 officers.....each..	25.00
Jailer.....	30.00

LEPER SETTLEMENT (ISLAND OF MOLOKAI).

Captain.....	35.00
4 officers.....each..	20.00
Jailer.....	25.00

ISLAND OF KAUAI.

The sheriff of this island, J. H. Coney, is an Hawaiian, appointed June 14, 1900.

Each of the five judicial districts of this island is presided over by a deputy sheriff and police officers.

The police headquarters are located at Lihue. The monthly rate of pay being as follows:

Sheriff.....	\$175.00
Sheriff's clerk.....	60.00

LIHUE.

Deputy sheriff.....	125.00
Captain.....	50.00
4 officers.....each..	40.00
Jailer.....	60.00
2 guards.....each..	40.00

KOLOA.

Deputy sheriff.....	70.00
3 officers.....each..	40.00
Jailer.....	40.00

WAIMEA.

Deputy sheriff.....	80.00
4 officers.....each..	40.00
Jailer.....	40.00

KAWAIIHAU.

Deputy sheriff.....	70.00
2 officers.....each..	40.00
Jailer.....	40.00

HANALEI.

Deputy sheriff.....	70.00
2 officers.....each..	40.00
Jailer.....	40.00

JAILS AND PRISONS.

Each district throughout the Territory has its jail and court-house, with a commissioned police officer as a jailer. These jails, with the exception of those at Hilo, Island of Hawaii; Wailuku, Island of Maui, and Lihue, Island of Kauai, are merely receiving stations or places of detention for persons arrested and awaiting trial before the district magistrate.

At Hilo, Island of Hawaii; Wailuku, Island of Maui, and Lihue, Island of Kauai, the majority of prisoners convicted on these respective islands of misdemeanors (offenses where the maximum penalty does not exceed one year) are confined.

In the combined jail and prison in Honolulu are confined all prisoners convicted of misdemeanors of the island of Oahu and all others convicted of felony throughout the Territory.

PRISON LABOR.

The laws of this Territory impose hard labor upon all prisoners, which work for the most part consists of labor upon the roads, Government parks, and in the stone quarries.

OAHU PRISON.

This institution, located at Honolulu, is capable of confining 400 prisoners. It is presided over by a warden, William Henry, an American, appointed by the high sheriff, June 14, 1900, at a monthly salary of \$200. Serving under such warden are the following:

	Per month.
Deputy warden	\$150
3 turnkeys.....	each.. 75
24 guards.....	do... 50

A salary of \$100 per month is paid for the daily attendance of a physician to attend to any sick prisoners.

Complete sanitary arrangements, good food, and plenty of exercise reduce the number of sick to a minimum.

About 300 prisoners are at present confined in this institution.

About 150 of these prisoners are employed upon public works in gangs of 15, each gang under the direct supervision of a guard receiving a monthly compensation of \$75.

They are worked nine hours a day, from 6 a. m. to 4 p. m., with an hour for rest and lunch at 12 m.

The remaining convicted prisoners are employed in various capacities about the prison.

The committed men are merely detained awaiting trial.

The legislature of 1904 appropriated for the year ending June 30, 1905, the sum of \$52,272 for the support and maintenance of prisoners throughout the entire Territory.

Also the sum of \$13,800 for police incidentals for the same period.

The entire estimated cost of the police department throughout the Territory, including support and maintenance of prisoners for the year ending June 30, 1905, is \$299,082.

For the year ending June 30, 1904, there were imposed by district magistrates throughout the Territory fines and costs amounting to \$65,214.20. Of this amount, including bails forfeited, \$50,995.75 was paid, the balance being cases appealed or those worked out at hard labor at the rate of 50 cents per day.

In this connection it should be stated that any person working out a fine may at the end of a year's time appear before a district magistrate, take the poor debtor's oath, and secure his discharge from such sentence.

DRUNKENNESS.

The increase in the number of licensed liquor saloons throughout the Territory has not, and the statistics bear out such fact, increased drunkenness.

The care exercised in granting such licenses has insured the proper conduct of such saloons, and such saloons have largely done away with the illicit sale of liquor.

GAMBLING.

The gambling laws are vigorously enforced, as the following statistics show:

Total arrests throughout the Territory	3, 138
Total convictions.....	2, 250

Of this number there were arrested in Honolulu 1,678.

Gambling to a certain extent among the Chinese of this Territory is constantly carried on in the shape of lotteries, and so conducted that convictions under our present laws are hard to secure.

The work done by the police department throughout the Territory shows for itself in the statistics hereto attached.

While a considerable number of crimes of violence have occurred during the past year, there has been a decrease in the ordinary run of offenses.

The number of prisoners at Oahu prison during the year past has averaged 272, the largest number being 324, on May 5, 1904, the lowest number being 232, on July 6, 1903.

The total number of days of imprisonment, classified, is as follows:

	Days.
Criminal offenses.....	61, 065
Misdemeanor offenses	24, 506
Committed	14, 048
Total	99, 619

The total imprisonment of prisoners reduced will show the daily average to have been—

Criminals.....	167
Misdemeanors.....	67
Committed.....	38
Total	272

Classification of the daily incarceration shows that 61.39 per cent were criminals, 24.64 per cent were misdemeanors, and 13.97 per cent were committed.

The average sick was 13.

There have been received during the twelve months ending June 30, 1904, 196 United States prisoners, for the support of which \$6,816.47 has been paid to this department.

The Hilo jail has had an average of 63 prisoners, mostly those convicted of misdemeanor offenses. The Wailuku jail has had an average of 24, mostly convicted of misdemeanor offenses. The Lihue jail has had an average of 15.

These prisoners, under the direction of the superintendent of public works, are worked upon the government roads and in the stone quarries.

Arrests made throughout the Territory of Hawaii and disposition of same in the district courts for the year ending June 30, 1904.

FOR DRUNKENNESS.

Islands.	Total arrests.	Sex.		Nationality.							Discharged.	Convicted.	Imposed.		Bails forfeited.	Fines and costs paid.	Total amount imposed.	
		Male.	Female.	Hawaiians.	Americans.	Portuguese.	Chinese.	Japanese.	Porto Ricans.	Others.			Fines.	Costs.				
Oahu ...	1,060	1,020	40	394	234	51		2	111	30	238	50	1,010	\$2,547.00	\$909.60	\$1,026.00	\$2,276.15	\$3,856.60
Hawaii ...	252	244	8	122	22	39		1	33	22	13	33	219	416.00	161.55	389.00	244.00	577.55
Maui and Molokai ...	151	149	2	91	19	6	.....	22	8	5		25	126	259.00	49.50	155.00	215.50	308.50
Kauai ...	18	18	..	6	1	1	.....	4	5	1		1	17	31.00	18.00	21.00	45.00	49.00
Total.	1,481	1,431	50	613	276	97		3	170	65	257	109	1,372	3,253.00	1,038.65	1,591.00	2,780.65	4,291.65

FOR GAMBLING.

Oahu	2,040	2,035	5	89	6	11	1,531	377	17	9	756	1,284	\$8,073.00	\$801.35	\$3,211.00	\$3,935.20	\$8,874.35
Hawaii	554	551	3	40	13		216	254	29	2	100	454	274.00	73.95	2,060.50	316.95	847.95
Maui and Molokai	475	471	4	45	3		186	214	27		153	322	1,062.00	20.20	983.00	597.20	1,082.20
Kauai	157	156	1	14			57	84	2		19	138	160.00	6.00	1,130.00	133.00	166.00
Total	3,226	3,213	13	188	9	24	1,990	929	75	11	1,028	2,188	9,569.00	901.50	7,379.50	4,982.35	10,470.50

SELLING SPIRITUOUS LIQUOR WITHOUT A LICENSE.

Oahu	80	71	9	12	2	10	27	22		7	20	60	\$5,000.00	\$59.00	\$600.00	\$1,270.80	\$5,059.00
Hawaii	26	21	5	2		1	7	16			8	18	1,350.00	39.70	450.00	574.35	1,389.70
Maui and Molokai	33	32	1		3	4	3	15	3	5	21	12	1,250.00	18.10	100.00	408.40	1,268.10
Kauai	14	13	1				7	6			7	7	435.00	16.10	200.00	3.00	451.10
Total	153	137	16	15	5	15	44	59	3	12	56	97	8,035.00	132.90	1,350.00	2,251.55	8,167.90

NATIONALITY AND SEX.

Islands.	Total arrests.	Sex.		Nationality.							Disposition.		
		Male.	Female.	Hawaiians.	English.	Americans.	Portuguese.	Chinese.	Japanese.	Porto Ricana.	Others.	Discharged.	Convicted.
Oahu	5,513	5,281	232	1,144	40	447	297	1,868	1,059	222	486	1,731	3,782
Hawaii	2,027	1,921	106	426	3	42	194	322	738	248	54	617	1,410
Maui and Molokai	1,371	1,308	63	354	1	48	58	279	522	98	11	498	878
Kauai	491	473	18	89	...	7	10	102	232	45	6	160	381
Total	9,402	8,983	419	2,013	44	544	559	2,571	2,551	613	507	3,006	6,396

AMOUNT OF FINES AND COSTS IMPOSED AND PAID.

Islands.	Total arrests.	Discharged.	Convicted.	Fines.	Costs.	Bails forfeited.	Fines and costs paid.	Total amount imposed.
Oahu	5,513	1,731	3,782	\$24,013.50	\$3,090.06	\$7,128.00	\$12,720.35	\$27,108.55
Hawaii	2,027	617	1,410	3,963.00	1,165.00	6,197.50	2,450.55	5,128.00
Maui and Molokai	1,371	498	873	6,444.00	317.00	1,646.50	3,692.80	6,761.00
Kauai	491	160	331	1,650.00	245.20	1,936.00	876.50	1,995.00
Total	9,402	3,006	6,396	36,070.50	4,817.25	16,903.00	19,739.65	40,887.75

Arrests made throughout the city of Honolulu and disposition of same in the district court for the year ending June 30, 1904.

FOR DRUNKENNESS.

Months.	Total arrests.	Sex.		Nationality.								Discharged.	Convicted.	Imposed.			Paid.	Total amount imposed.
		Male.	Female.	Hawaiians.	English.	Americans.	Portuguese.	Chinese.	Japanese.	Porto Ricans.	Others.			Fines.	Costs.	Bails forfeited.		
1903.																		
July	137	132	5	49	6	29	5	.....	13	1	34	5	132	\$303.00	\$89.30	\$102.00	\$277.30	\$392.30
August	107	100	7	43	3	20	5	.....	18	1	18	2	105	275.00	75.70	72.00	259.60	350.70
September	102	94	8	42	1	19	8	.....	1	9	2	20	96	224.00	75.20	126.00	227.10	299.20
October	73	68	5	28	1	12	3	.....	11	2	16	5	68	178.00	58.30	46.00	180.10	236.30
November	68	68	..	38	1	13	3	.....	7	..	6	2	66	177.00	57.40	42.00	168.00	234.40
December	83	83	..	25	..	21	7	.....	1	3	6	20	80	224.00	69.90	135.00	198.00	293.90
1904.																		
January ...	60	58	2	28	1	11	2	.....	6	..	12	5	55	150.00	47.60	35.00	135.15	197.60
February ...	97	94	3	32	5	19	10	.....	6	3	22	4	93	229.00	74.40	96.00	201.40	303.40
March	67	66	1	25	1	20	3	.....	6	..	12	1	66	143.00	47.20	96.00	106.00	190.20
April	56	55	1	17	1	17	1	.....	6	2	12	1	55	147.00	47.00	42.00	123.00	194.00
May	120	116	4	29	1	33	2	.....	15	11	29	9	111	315.00	102.50	133.00	226.40	417.50
June	59	57	2	20	..	20	1	.....	1	3	14	2	57	141.00	48.10	47.00	116.10	189.10
Total...	1,029	991	38	376	21	234	50	.....	2	101	30	215	45	2,506.00	792.60	972.00	2,218.15	3,298.60

FOR GAMBLING.

1903.																		
July	79	79	..	2	.....	..	..	42	35	..	..	13	66	\$1,213.00	\$55.45	\$130.00	\$1,005.00	\$2,168.45
August	107	107	..	7	.....	..	..	70	29	..	..	65	42	330.00	8.70	360.00	32.00	338.70
September	41	41	..	4	.....	..	..	36	1	..	..	11	30	197.00	24.40	51.00	206.30	221.40
October	63	63	..	1	.....	..	..	50	1	11	..	43	20	82.00	22.00	.....	94.00	104.00
November	163	163	..	..	..	..	1	137	25	..	..	22	141	270.00	64.00	472.00	234.00	334.00
December	77	77	..	..	..	..	..	60	17	..	..	21	56	301.00	35.20	42.00	259.00	336.20
1904.																		
January	121	121	..	3	..	1	2	104	5	2	4	77	44	164.00	27.60	78.00	132.30	191.60
February	103	102	1	4	.....	..	..	86	13	..	..	32	71	342.00	54.20	87.00	388.20	396.20
March	259	259	..	4	..	2	3	224	24	1	1	93	166	921.00	101.40	462.00	181.10	1,022.40
April	181	181	..	32	..	3	1	44	50	1	..	28	103	635.00	48.70	460.00	406.70	683.70
May	381	378	3	9	.....	2	2	337	30	..	3	195	186	1,951.00	168.30	170.00	372.30	2,119.30
June	153	153	..	12	.....	2	2	128	9	2	..	73	80	952.00	76.70	20.00	350.00	1,028.70
Total	1,678	1,674	4	78	..	6	11	1,240	239	17	9	673	1,005	7,358.00	686.65	2,332.00	3,660.90	8,044.65

SELLING SPIRITUOUS LIQUOR WITHOUT A LICENSE.

1903.																		
July	9	8	1	.....	..	2	3	3	..	1	2	7	\$900.00	\$10.60	.....	\$101.00	\$910.60
August	2	2	..	.....	..	2	..	..	..	..	..	2	..	..	\$200.00	.....	..
September	3	2	1	.....	..	..	1	2	..	..	..	3	100.00	1.30	100.00	..	101.30
October	1	1	..	.....	..	..	..	..	..	1	..	1	100.00	1.00	..	101.00	101.00
November	8	8	..	3	.....	..	..	5	..	..	2	6	400.00	9.00	.....	..	409.00
December	1	1	1	.....	..	..	..	..	..	..	..	1	..	..	.....	..	..
1904.																		
January	3	3	..	.....	..	..	2	..	..	1	..	3	300.00	2.70	.....	..	302.70
February	6	4	2	1	.....	..	..	4	..	1	..	6	800.00	5.00	100.00	..	805.00
March	13	12	1	3	..	1	2	4	3	..	5	8	600.00	5.70	100.00	101.00	605.70	
April	11	10	1	1	..	1	1	2	4	..	2	9	900.00	6.40	100.00	353.00	906.40	
May	4	3	1	.....	..	3	..	..	..	1	2	2	200.00	1.30	.....	..	201.30
June	4	3	1	.....	..	3	..	..	..	1	2	2	200.00	1.30	.....	..	201.30
Total...	61	53	8	9	..	2	10	17	16	..	7	13	48	4,300.00	43.00	600.00	656.00	4,343.00

DEPARTMENT OF SURVEY.

By WALTER E. WALL.

Owing to the complicated system of land division in the different islands of Hawaii and the irregular formation or nature of the country it requires more than mere knowledge of engineering principles to make a survey that will establish accurately the boundaries of the government and private lands. Complications often arise that make surveys slow and costly, and it often requires patience and painstaking efforts on the part of the surveyor in running out or reestablishing the boundaries of the old surveys. The data furnished for the purpose of determining the magnetic declination and the rate of change from year to year to assist in making these surveys has been of much value.

This will be better understood from the following mention of the original claims and divisions of the lands: The land was originally held by the Hawaiians in such manner as the chiefs or kings permitted, and the ownership was continued by them when the government issued titles.

The primary division of the land was the "Ahupuaa." This, as a general rule, took the form of a long strip running from the seashore to the mountains, the object being to give the chief who held it with the approval of the reigning sovereign the various products of the sea and the soil. The tenants under the chiefs occupied their small lots with more or less permanence by rendering military and agricultural service as circumstances required. It is therefore seen that the lands were originally held under a regular system. The great land division took place during the reign of Kamehameha III in 1846-1849, the records of which, briefly stated, show the following:

1. Certain lands which were owned or reserved by the King were for a time treated as private property. The act of the legislature of 1864 made these inalienable public lands known as "Crown lands," the revenue of which was to go to the reigning sovereign.

2. The chiefs retained ownership to the better part of the ahupuaas which had been held by them in fief.

3. The common people were given fee-simple title to such small lots within the ahupuaas as they had occupied and improved. The number of these titles were over 11,000, and many of them covered several separate lots. These lots are commonly referred to as "kuleanas," though they are recorded as "Land commission awards."

4. The remaining lands, most of which were given up by the chiefs in commutation for the acquirement of title to the lands retained, constitute the government lands.

5. Portions of the government lands (No. 4) sold since the above division are known as "Royal patents" and "Grants."

The government grants issued prior to the beginning of the Survey Department numbered about 3,000.

Perhaps a fair estimate of the number of ahupuaas would be about 2,000. These have subdivisions called "ilis," which are not always held by the owner of the ahupuaa.

The above gives the main features of the land system, though many details are necessarily omitted here for lack of space.

Considering the fact that such descriptions as were incorporated in

the above titles were magnetic spot surveys, each quite independent of the other, and this, too, with the local attraction prevalent everywhere, one can not help but realize what an arduous work it has been to bring the mapping of these lands up to the present condition.

There were no general surveys, although the kuleanas of a few sections were platted together. Fortunately the names of the abutting lands or owner is generally given. Most of the larger lands and ahupuaas were awarded by name only, with the understanding that the ancient boundary should be preserved. Owing to the many natural divisions or sections established through the formation of the islands, a great many maps have been made, considering the size of the country. The maps registered in the office number 2,252. Constant use is made of the records of the office by the courts of law and the legal fraternity. Property owners are daily consulting the maps to get information on the location of their lands. This is due to a great extent to boundary disputes arising from the lack of boundary fences. Comparatively little fencing has been done and many ancient boundaries are lost which require expert surveyors to reestablish. There is much important work ahead for the Department in running boundaries of Government tracts, locating the kuleanas or small private lots, which are almost invariably to be found in the most desirable or fertile part of the land, preparatory to laying out such lands into homesteads as they become available. Some idea of the condition and value of the records of this office may be taken from the fact that it took but a few months to furnish the tax assessor with detail maps showing practically all of the original titles on the island of Oahu. The block plans of the city of Honolulu showed frontages, areas, and sufficient data to very materially assist the assessor in his work of appraising values. The various public improvements, such as street widenings, extensions, grading, harbor developments, etc., require many surveys and descriptions to be made. Surveys, descriptions, and plans are made also for every sale or lease of government land.

A great amount of information is furnished to private parties, as well as the various departments of the government, on a variety of matters pertaining to lands. This part of the work seems to be steadily increasing. An important work is the arranging and indexing of records, in order that the maps and documents may be found with the least delay possible. We are now engaged in revising the indices, and cross indexing in a carefully planned manner.

This office has furnished local standard and Greenwich time. Since the operating of the time signal comparatively few chronometers are rated for navigators. Navigators of various classes of vessels often call for time comparisons in order to correct the rates to their chronometers.

In addition to the land surveys all the important harbors have been surveyed and mapped. Many of these have been published by the United States Hydrographic Office.

The triangulation, which consists of a carefully selected network of triangles measured with precision in thorough accordance with the methods of the United States Coast and Geodetic Survey, will, when substantially marked on the ground, serve the same purpose to our lands that the meridian and parallels do in the United States land system. These points will serve as the foundation to geological, hydrographic, and topographical surveys in the future.

METEOROLOGICAL WORK.

By ROBERT C. LYDECKER.

Although the United States Weather Bureau intended to assume charge of the weather service here on the 1st of July, it was found to be impracticable, owing to the late arrival of Director A. M. Ashley, esq., and the many difficulties and delays experienced by him in obtaining satisfactory offices.

Records of daily rainfall have been received from 44 stations on the Island of Hawaii, 39 reporting for the full year, the others having been established during that time, and on account of the sickness of the observer, one station, not included in the above figures, was discontinued. Twelve stations have reported from Maui, being one less than the previous year. A station was established in October, 1903, at Kemoku, Lanai, and reports have been received regularly since then, this being the only station on that island. Twenty-seven stations on Oahu have made full reports for the year, and 2 stations discontinued with but partial records. The Island of Kauai has furnished reports from 15 stations the full year, and 2 were discontinued after a few months, making a total for the group of 99 rain-record stations reporting at the close of the year.

Six observers on Hawaii are furnished with maximum and minimum thermometers, 4 of whom have reported for the full year, 1 dropped out after ten months' service, and the other began only in January, 1904.

One observer reports from Lanai, 1 from Maui, and 4 on Oahu, making a total of 11 temperature reports. Several of these observers report direction of wind and brief notes on the weather. Three observers also make daily observations of humidity, and 1, in addition to the foregoing, barometer readings.

The observations at the central office at 1508 Alexander street, Honolulu, have been kept up in the usual way, involving 39 entries a day. This closes the twenty-first year of the series. The publication of these observations, as well as those at the outstations, in permanent form, begins with the year 1892 and ends with the year 1903. What steps will be taken in reference to the publication of the records from January 1 of the present year until the United States Weather Bureau assumes charge of the service, a subject which will be referred to in a succeeding paragraph, has not yet been decided.

Every month a summary, including the averages and extremes, and comparison with normal meteorological conditions, was published in the local papers. This includes also the average temperature and other items from outside stations, especially the percentage of district rainfall as compared with the normal. One paper also publishes the monthly rainfall throughout the group.

The daily conditions of the weather were telephoned to three daily papers—two evening and one morning; the latter was also furnished with a forecast for the day. This paper also published a weekly meteorological record. All three papers were furnished with a weekly tide table.

A copy of the monthly summary and rainfall, together with a monthly record of observations, on their own form, was sent to the United States Weather Bureau at Washington each month and pub-

lished by the Bureau in its official organ, the *Monthly Weather Review*. As this publication is sent to all the leading observatories, weather offices, and scientific societies throughout the world, our reports had a wide circulation. The United States Hydrographic Office also received monthly reports from this office. Our published annual report for 1903 was, as has been the custom, sent to the principal observatories and weather offices abroad and publications received from them in exchange.

The automatic tide gauge in Honolulu Harbor is under the charge of this office and has been in continuous service, this being one of the important stations of the world. Duplicates of the records are sent to the Tidal Division of the United States Coast and Geodetic Survey twice a year. The mean sea level is also an especial matter of study and the rising and falling of the water in our artesian well subterranean reservoir is noted.

In expectation of the United States Weather Bureau assuming charge of the weather service in the Territory July 1, 1904, the Territorial legislature made no appropriation to support the local service after that date. The work of this office will, therefore, officially cease at that time, but in view of the fact that the United States Bureau is not prepared to take up the work and that a long series of records may remain unbroken the meteorologist will keep up the service as before, in addition to his regular duties in the survey office proper, until such time as the United States Weather Bureau is in position to take it over, which it is expected will be in about two months' time, the United States observer being now on the ground and making every effort to establish his office as soon as possible.

In submitting this, the final report of the Territorial service, a brief summary of the work accomplished seems fitting. From a small beginning and through the untiring efforts of my predecessor, Prof. C. J. Lyons, this station occupies an important place in the world's climatology. Its records are of no little value, and are carefully studied by meteorologists the world over. Situated as we are, near the northern edge of the trade-wind belt, it possesses advantages unique in themselves and opportunities not to be found elsewhere.

Recognizing the importance of the Hawaiian Islands as a meteorological station and the great benefit the study of its climate would be to the meteorological world was doubtless what prompted Professor Lyons to assume the self-imposed task of a systematic record and study, and that his efforts have not been in vain is shown by the appreciation with which they have been received. As to the beginning of these observations Professor Lyons, then an assistant in the government survey, reported to the surveyor-general, under date of April 24, 1890, in part, as follows:

The government survey observations extend back for only a period of seven years for rainfall and about ten for barometer, etc. It may be well in this connection to say that while no especially authorized series of observations has ever been instituted, a beginning has been made in this branch of the public service, viz, the survey, from a conviction that it was a public duty and that this government should to some extent act in unison with all other civilized governments in recording and communicating to the world generally the meteorological facts of the country.

This first report was not so much a report of work done as a gathering up into practical shape of such data as could be obtained from various private records. Mr. Lyons first began keeping temperature

and barometer records in 1874, and from that time until 1882 records were kept as circumstances would permit, being interrupted from time to time by absence caused by surveying duties. In 1882 temperature and barometer observations were undertaken in a more systematic manner, to which were added gradually those of wind and weather. In 1883 observations of the above-mentioned phenomena, with the addition of the rainfall, were begun at the present Weather Bureau station and have continued until the present time. In 1890 humidity observations were added to the above, and in the same year the outside stations began their regular rainfall reports, several stations also reporting temperature, which reports are still received.

Other than the reports published in 1890, annual reports of detail have been published embracing 1892-1903. In addition to the reports mentioned, a report was published in 1900 of rainfall only, giving the entire monthly rainfall of each station from the beginning of observation, when such beginning was before 1897, and coming down to the close of 1900. In some cases this covers a period of twenty or more years. This report gives the normal average for each month of the year, and the average yearly rainfall for each station. As this report covers the entire group, it was doubtless very useful to the agricultural interests of the Territory.

The expense necessary to carry on the work was, to 1895, borne by the survey department. The legislature in that year, recognizing the importance of the work, made a regular appropriation for office expenses, to which, in 1898, was added a salary appropriation for the meteorologist, both of which have since been continued.

Considering the limited means and facilities at its command, the office feels a pardonable pride in the record it has made, the results achieved, and the benefits derived for the islands and the meteorological world generally.

ENTOMOLOGY.

By R. C. L. PERKINS.

The chief work of the economic entomologists of these islands may be divided into two parts: (1) The prevention of the importation of injurious insects or plant diseases from other countries. (2) The destruction of injurious insects already present in the islands. It is quite clear that unless the work mentioned in the former section be faithfully and rigorously executed there is little or no profit in the maintenance of an entomological staff here. Our conditions in Hawaii are not similar to those of any other country where attention is paid to economic entomology, and consequently means adopted with success for the control of certain pests elsewhere are not applicable here except in few cases.

There are obvious reasons for this:

(1) The equability of our climate brings it about that many of our injurious introduced insects, which in their own country appear but for a short season, producing only one or at most two or three broods a year, are known here to produce generation after generation, with only short periods of rest. Hence, multiplication of a pest is extraordinarily rapid as compared with the same in its native home.

(2) When a new insect pest is introduced here it usually arrives immune from parasites, disease, or other restraining causes. In some few cases, owing to the presence of native insects here allied to the introduced one, and to the fact that these native insects are restrained by their own parasites, natural enemies, or diseases, the newcomer is attacked by the enemy of the allied native species and is partly or entirely restrained from doing injury. The chance of such an enemy being found here ready to attack the newcomer is generally very small, owing to the extraordinary character of the native fauna, in which whole groups and families of insects, both injurious and beneficial, are not represented by a single species. This fact alone renders the situation totally unlike that of any other country where economic entomology is systematically practiced. There are disadvantages in being so situated, but likewise great advantages, which it is not necessary to consider here.

(3) Very many of our insects are not at all confined to valuable plants, but also live and thrive on all sorts of common weeds or trees of no special value. Hence, however well the agriculturist clears his own property of a pest, he is liable to be besieged with swarms of the same insect from the rough country round about him, since they naturally flock to the more attractive diet provided by cultivation.

Only quite recently has a staff of entomologists and suitable quarters and apparatus for their work been provided for in this Territory. From the date of annexation to 1902, and indeed for years prior to annexation, Mr. Albert Koebele worked unassisted both here and on his missions. When present in these islands he inspected imported plants; during his long absences inspection was made by the acting commissioner, but not by a qualified entomologist.

In 1902, when Mr. Koebele departed for Mexico, Mr. R. C. L. Perkins was appointed as a government official to inspect imported plants, and he also handled all the beneficial Mexican insects sent by Mr. Koebele, being employed to do so by the Hawaiian Sugar Planters' Association and that of the live-stock breeders of these islands. In 1903 Mr. Koebele was appointed superintendent of entomology under the new board of commissioners, Mr. Perkins was made assistant superintendent, and two other entomologists and an assistant inspector were appointed. Half of the salaries and traveling expenses of the superintendent and two assistant entomologists are defrayed by the Hawaiian Sugar Planters' Association. Mr. Koebele and Mr. Perkins are now making investigations in Australia, while Prof. Alexander Craw, executive officer of the California State board of horticulture, has just been permanently engaged for work in this Territory.

FORESTRY IN THE TERRITORY.

By RALPH S. HOSMER.

The proper management of the forests on the several islands of the Territory is one of the large problems facing the Territory of Hawaii. For the successful development not only of sugar, the staple crop of the Territory, but also the other important agricultural industries, it is essential that there be an ample water supply. It is generally recog-

nized that, to insure beyond question a constant supply of water, the watersheds must be protected by a forest cover. Fortunately, in this Territory, the original forests remain over a considerable portion of the area where such protection is most needed, and, what is equally important, there exists an excellent public sentiment in regard to protecting them.

The native forests are admirably adapted for the conservation of moisture. Under the trees grow dense masses of rich, tropical vegetation, which make very nearly ideal conditions for retaining a large share of the heavy rainfall, and consequently preventing excessive run-off, resulting in alternating seasons of flood and drought. But the forest is easily susceptible to injury, especially from cattle. With grazing the undergrowth recedes, and even the trees, which for the most part are shallow-rooted, become weakened, and fall a prey to numerous destructive insects. For this reason it is necessary that grazing be prohibited in the forests, which are needed to protect and safeguard the watersheds, and this, in turn, leads to the necessity of creating forest reserves.

To administer to the best advantage the reserves to be set aside and to deal with the various forest problems which have to be solved in this Territory is the work of trained men, men educated in the profession of forestry. In part to meet this demand the Territory last year reorganized its department of agriculture and established the present bureau of agriculture and forestry, under the direction of a board of unpaid commissioners appointed by the governor. The division of forestry is under the direction of the superintendent of forestry, who, by the terms of the law, must be a professional forester of experience, and it is the intention to build up in the division a service of technically trained men, who shall be capable of handling to the best advantage the forest interests of the Territory.

Much creditable work in forestry has been done in the Territory in past years, both by the government and by individuals, but the establishment of the present service is a sufficiently important step to entitle Hawaii to a place among the States that are most active in the forestry movement. In the wide field for forestry work now open in the Territory, the first and immediate need is the creation of forest reserves on each of the main islands. Following a careful examination of the proposed reserve by the professional foresters of the division of forestry, recommendations are made by the board on the basis of which the governor will set apart areas of forest land as forest reserves.

Forest reserves having been set apart, the next step will be to establish a system of administration for them. This will include the organization of a forest-ranger service, the erection of suitable fences around the reserves, and the extermination of wild cattle and goats that may be within their limits. The administration of the reserves will rest with the division of forestry.

Following the creation of the reserves and the adoption of a comprehensive system of administration, another line of forestry work will be taken up. This is the planting of waste and barren places throughout the islands with forest trees. Much tree planting has already been done by individuals and corporations on their own lands. From the results of this work and from experiments with exotic trees, now in progress, much information will be available, so that when the time comes for extensive planting it will be definitely known what

kinds of trees are best adapted for the local conditions. In this work trees which are commercially important will be given the preference.

Other lines of work which are being undertaken by the division of forestry are the collection of information as to the character, extent, and distribution of the forests on the several islands, including forest maps; the collection of statistical and other facts relative to the forest products of the Territory; the gathering of an herbarium of the arborescent flora, and, in the library of the bureau, the collection of books on forestry.

The division of forestry maintains close and cordial relations with the Bureau of Forestry of the United States Department of Agriculture, and expects to receive material assistance in at least one line of work—that of assistance to private owners in the management of their forest lands, especially in making plantations.

So far as time and appropriations permit, the division of forestry stands ready to give its advice and assistance to persons desiring to plant, but later it is hoped that the Federal Bureau can furnish a man to assist in this work.

In these main lines of forestry work there is enough to keep busy for a number of years a much larger force than is now available.

With the general plan just outlined carried into effect, the outlook for forestry in the Territory is a bright one. The people are alive to the necessity of preserving the forests and to the fact that any considerable reduction of the existing forest area will endanger the prosperity of the Territory. The forest itself is such that, if protected by the creation of forest reserves, it can be brought into a satisfactory condition. The work of establishing and administering the forest reserves, as well as other forestry investigations, is being handled by a department of the Territory equipped for capably dealing with the problem.

The policy of setting aside tracts of land as forest reservations has been adopted by the trustees of the Bishop estate, who have set aside lands on the islands of Oahu and Hawaii for such purposes. Some of these reservations have been fenced in a substantial and effective manner, and fully protected and reserved for the general benefit of the districts in which they are located, and for the conservation of the water supply, while other tracts are only partially fenced in and protected.

In the Kawaihoa-uka tract, on the Island of Oahu, and in the South Kona reservations, on Hawaii, the good effect of this protection is shown in a very marked degree in the new growth of young trees and underbrush.

There is another lot of Bishop estate lands which may possibly be set aside for forestry purposes in the future, upon the completion of some comprehensive plan by the government bureau having charge of these matters. These tracts of land, on the Islands of Kauai, Oahu, and Hawaii, are nearly all in the upper portions of the great interior valleys and in the existing forests, whose preservation is essential to the welfare of the general public and the estate. At the present time and with the limited information at hand it is impossible to give even an approximate estimate of areas of the proposed reservations, but it is believed a very large addition can be made without seriously impairing the revenue-producing areas of the estate lands.

In general, it may be said that it is the policy of the trustees of the Bishop estate to assist in the gradual development of the forest reservations on the islands whenever and wherever it can be done without prejudice to other valuable interests. In several cases in which leases have been made carrying certain water rights appurtenant to the land of the lessors, the forest tracts have been amply protected by strict clauses in the leases, and in future leases the same rule will be followed.

Bishop estate forest reservations.

[Approximate areas.]		Acres.
Hawaii:		
Pahoehoe, Hilo		800
Keauhou, Kau		4,500
Kaiwika, Hamakua		1,600
Kahauloa, South Kona		3,400
Keeli, South Kona		2,900
Honaunau, South Kona		3,700
Keokea, South Kona		1,600
Total		18,500
Oahu:		
Kawailoa, Waialua		8,400
Paalaa-uka, Waialua		4,200
Waiawa, Ewa		4,100
Waiau, Ewa		1,500
Halawa, Ewa		1,800
Kalauao, Ewa		700
Total		20,700

Bishop estate's proposed forest reservations.

Oahu:	
Punaluu, Koolau	Mauka section.
Kaluanui, Koolau	Mauka section.
Maunalua, Kona	Mauka section.
Waialae (2), Kona	Mauka section.
Hawaii:	
Honokane, Kohala	Upper valley.
Kaupulehu, North Kona	Mountain portion.
Kapua, South Kona	Mountain portion.
Kalalau, Hilo	Mauka section.
Kikala, Hilo	Mauka section.
Alae, Hilo	Mauka section.
Kauai:	
Waipa	Upper valley.
Lumahai	Upper valley.

DESCRIPTION OF INDUSTRIES AND ENTERPRISES.

THE SUGAR INDUSTRY.

By C. F. ECKART.

The year 1876, when the reciprocity treaty between the Kingdom of Hawaii and the United States of America was entered into, marked the advance of the sugar industry of the Hawaiian Islands; labor was plentiful and comparatively cheap, the prices of sugar were high and the conditions favored a rapid increase in the sugar industry of the islands.

In late years, however, the prices of labor have risen and the prices of sugar have decreased, and periods of industrial depression have at times very much affected the sugar industry. The planters have had their prosperous years, and have also suffered from lack of labor, droughts, low prices of sugar, and other conditions, during which times they have manufactured their sugar at such expense that there has been no profit. The unfavorable conditions, however, have been met with the progressive spirit of American farmers and business men, and improved methods of cultivation and manufacture have been adopted.

Twenty years ago the average yield of commercial sugar was about 10 pounds per 100 pounds of cane and the average yield of cane per acre was about 25 tons. At the present time the average yield of commercial sugar is about 12 pounds per 100 pounds of cane and the average yield of cane per acre is about 40 tons.

There are now being operated 52 sugar plantations, with outputs varying from 350 short tons of sugar per annum to 35,000 tons. The great majority of these plantations are operated under their separate management, while a few sell their cane to neighboring mills and plantations. These 52 plantations are all represented in Honolulu by agents.

Most of the plantations are joint stock companies. There are a few, however, which are owned by individuals. Forty-three of the plantations which are incorporated have 6,366 stockholders.

The sugar is shipped to San Francisco, Cal., and around Cape Horn by steamer and sailing vessel. From California it goes overland to the East.

Under the United States navigation laws it is necessary that all sugar sent from here be shipped in American bottoms. The planters have been unable to obtain suitable American tonnage sufficient to carry all their sugar to the East around Cape Horn, and at least one-fourth of the crop of 400,000 tons produced last year had to go to San Francisco, Cal., and from thence overland at a rate very much greater than by all water.

The time taken in getting sugar to the market is from two to five months, owing to the great distance which it has to be transported.

In some instances the sugar is shipped direct from the port of a plantation, but in most cases it comes to Honolulu or Hilo, Island of Hawaii, or Kahului, Maui, and from there is shipped to the States. The shipment from the various island ports to Honolulu is accomplished through the two interisland steam navigation companies, which control about 19 vessels representing an American tonnage of 6,018.

The Island of Hawaii produces more sugar than any of the other islands, the island of Oahu coming next, followed by Maui and Kauai. The annual output of the islands since 1894 has been as follows:

[2,000 pounds to the ton.]

	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
Hawaii.....	72,199	61,643	109,299	126,736	91,606	117,239	115,224	134,618	121,295	170,665
Maui.....	33,689	27,735	29,097	41,047	45,033	54,389	57,347	58,849	56,726	84,776
Oahu.....	18,843	17,433	35,782	28,929	34,181	45,820	53,625	99,534	107,870	121,066
Kauai.....	41,701	42,816	51,650	54,414	58,591	65,359	63,348	67,537	69,720	61,484
Total.....	166,432	149,627	225,828	251,126	229,414	282,807	289,544	360,038	355,611	437,991

At the present time the sugar industry is depressed and is feeling the effects of the low price of sugar which prevailed during the past three years and the lack of sufficient competent field labor. The damage done to the cane fields by the leaf hopper, cane borer, and fungus diseases has also been very great.

In the year 1902 the total tonnage produced in the islands was 355,611 short tons. The capitalization of the incorporated plantations was \$63,940,650, and the amount of dividends paid was \$1,757,520, or at the rate of 2.75 per cent.

In 1903 the total tonnage produced was 437,991 short tons. The capitalization of the plantations was \$64,878,931.63, and the total amount of dividends paid was \$1,555,652.68.

YIELDS, FERTILIZATION, AND CULTIVATION.

The yield of sugar for the Hawaiian Islands for the crop of 1903 was 438,054 short tons, which quantity was harvested from an area of 93,350 acres. The following statements of yields show the relative production on irrigated and unirrigated plantations and for the islands as a whole:

Yields of sugar for 1903.

	Acres.	Total sugar.	Yield per acre.
		<i>Tons.</i>	<i>Pounds.</i>
Hawaiian Islands	93,350	438,054	9,385
Irrigated plantations	42,097	260,525	12,377
Unirrigated plantations	51,253	177,529	6,927

While the average yield of 4.69 tons of sugar per acre appears high when compared with that of other sugar-growing countries, it is in a measure misleading, for the fact that the Hawaiian cane crop takes as a rule from eighteen to twenty-two months to mature (thirty months are required on certain fields on the uplands of Hawaii) necessitates a

considerable reduction in this stated yield before it can be brought into comparison with annual crops of other countries.

Reliable statistics have been recorded since 1895 showing the yields of sugar and acreage of all plantations in the group, and the increased production per acre between 1895 and 1903 may be seen from the following figures:

	1895.	1903.
Under cane.....acres.....	47,399.5	93,350
Total yield of sugar.....tons.....	157,419.5	438,054
Yield of sugar per acre.....pounds.....	6,472	9,385

This increased yield per acre during a period of nine years may be attributed to several causes, which may be briefly stated as follows:

THE EXPANSION OF THE SUGAR INDUSTRY THROUGH THE TAKING OVER OF NEW LAND.

A certain gain per acre has without doubt followed the planting of new lands. The total area of cane harvested in 1895 was 47,399.5 acres. Of these sugar lands 23,945 acres, or practically 50.6 per cent, were dependent upon rainfall for their water supply, and 23,454.5 acres, or 49.4 per cent, were irrigated. In 1903 the area of cane harvested was 93,350 acres, of which 51,253 acres, or 54.8 per cent, were dependent upon rainfall, and 42,097 acres, or 45.2 per cent, received irrigation. These figures show that the unirrigated area has increased over the irrigated lands by 9,156 acres since 1895. Unless we stop to consider the nature of the lands added to the sugar area in each instance we would expect to find a decrease in the acre yield for 1903 rather than an increase, other influences being omitted from consideration.

New lands taken over by the unirrigated plantations have been largely on the higher levels, where the soil is thinner and poorer as a rule, and the sugar yields, although at first good, are soon reduced after harvesting one or two crops and become less than those obtained from the lower-lying areas. On the irrigated plantations the new lands which have been added to the cultivated area have usually been richer than those under cultivation for some time, and such expansion has followed the opening of new sources of water supply with the advantages of improved irrigation facilities. The production per acre on the unirrigated plantations was 30.4 per cent higher in 1903 than in 1895, and on the irrigated plantations a gain of 61.3 per cent was obtained during the same period. The gain in the former instance must be attributed almost entirely to improved methods of cultivation and fertilization and to the introduction of more thrifty varieties of cane, while in the latter case a greater production due to new lands can not be omitted as an important factor along with the gain from progressive methods of cane farming. A considerable part of this gain on the irrigated plantations was due to the yields of three plantations situated in a favorable locality bordering on Pearl Harbor. The acreage of cane harvested from these plantations in 1903 was 10,419 and the sugar yields 88,768 tons. Omitting these plantations from the list of irrigated estates would reduce the average yield per acre of irrigated plantations for 1903 from 12,377 pounds to 10,844 pounds,

and of the islands as a whole from 9,385 to 8,423 pounds. Two of these plantations, representing 49,993 tons of the 1903 crop, came into existence later than 1895, and the other has largely extended its area since that year. Increased technical skill in the mill and sugarhouse, with a resulting decrease in losses of manufacture, has also added to the output per acre.

While the foregoing comparison shows a remarkable increase between the years 1895 and 1903, it must be borne in mind that the high-water mark in the production of these islands has been reached; the crop for 1904 will not reach more than 380,000 tons, while that of the following year is not estimated to amount even to that figure.

The profits accruing from the increased yields on the irrigated plantations have not always been commensurate with the increased production, owing to the large cost of waterway construction and of pumping. The cost of irrigation includes the installation of pumps, construction of ditches and reservoirs, tunneling, and the labor of applying water to the cane furrows. The expense incurred in the making of Hawaiian irrigation ditches may be conceived when the obstacles encountered in this line of engineering work are considered. The headworks of the Makaweli ditch, for instance, involve 29 tunnels of a continuous length of 5 miles, 7 feet wide and 7 feet high excavated in the solid rock and built on a grade of 8 feet per mile, which will give a daily capacity of over 60,000,000 gallons when running 4 feet deep (report of M. M. O'Shaughnessy). As regards the cost of pumping to higher elevation, Mr. O'Shaughnessy states: "To pump 10,000,000 gallons daily against a head of 300 feet with ordinary pumps and fuel in service will consume 15 tons of coal daily, which at \$8 per tons amounts to \$120 for daily fuel expenses." Another engineer computes the average cost of lifting 1,000,000 gallons of water 1 foot, with coal as fuel, to be as follows:

Operating expenses.....	\$0.081
Interest 6 per cent.....	.014
Depreciation 3 per cent.....	.007
	<hr/>
	.102

With fuel oil the average cost is reduced as follows:

Operating expenses.....	\$0.053
Interest 6 per cent.....	.014
Depreciation 3 per cent.....	.007
	<hr/>
	.074

About 5,000,000 gallons are used per acre in the growing of a crop and this quantity is pumped to a maximum height of 550 feet.

A careful test conducted at the experiment station of the Hawaiian Sugar Planters' Association in Honolulu showed that without irrigation it was only possible to obtain 1,600 pounds, or less than 1 short ton of sugar per acre. This was with a rainfall of 32.5 inches per year. The largest of the irrigated plantations have a much smaller rainfall than 32.5 inches, and it would not be possible to harvest even the small acre output indicated by the unirrigated cane at the experiment station. A yield of 1,600 pounds of sugar to the acre would not justify the expense of growing, harvesting, and milling the same, and it is safe to say that were the sugar lands of this Territory entirely dependent upon rainfall, the 1903 crop would have yielded little more than 177,529 tons of sugar.

INTRODUCTION OF NEW VARIETIES.

In accordance with the experience of planters in other sugar-growing countries, those of Hawaii have been obliged to maintain the yields in many localities by the substitution of more thrifty and hardier canes than the old standard varieties. The attention given to this subject on many of the plantations has undoubtedly helped to raise the acre output. On Hawaii, the Lahaina cane after having been grown for many years was finally succeeded by the Rose bamboo, which latter variety is now making way for a more vigorous cane, termed Yellow Caledonia. In districts subject to overcopious rains or to excessive drought, and where Lahaina and Rose bamboo (in less measure) would show an occasional falling off in production, under such adverse influences Yellow Caledonia, through its hardier characteristics, has maintained a favorable yield in less-favored seasons. On lands which had given out for Lahaina to such an extent that the cane made but a meager growth, this variety has yielded a profit to some plantations that would otherwise have taken off their crop at a loss.

The Hawaiian Sugar Planters' Association maintains at considerable expense an experiment station in Honolulu, where new varieties introduced from foreign sources are carefully tested as to their productive value, and then sent to the various plantations for trial under their conditions. With the advent of serious insect pests and fungus diseases in Hawaiian cane fields, it became necessary to carefully watch the growth of these canes to note their relative immunity from disease and their ability to cope with the serious pests of the islands.

FERTILIZATION AND CULTIVATION.

Probably in no other cane-growing country does the subject of fertilization receive so much consideration as in the Hawaiian Islands, and the study which has been given to this question by plantation managers has done much to raise the sugar yield per acre throughout the Territory. Planters here have adopted a policy different from that usually in vogue. They do not wait to fertilize after the soil is depleted and exhausted, but practice the plan of sustaining the food qualities of the land and bettering its condition by the extensive use of fertilizers on the virgin soil. The percentage of the various ingredients, as well as the forms in which they are applied in mixed fertilizers, are carefully considered with regard to climate and soil and, owing to the diversity of Hawaiian conditions, fertilizer formulas show wide variations in the various districts of the group.

The average quantity of mixed fertilizer applied per acre for the crop of 1903 was 910 pounds, the average formula being 7.1 per cent phosphoric acid, 10.1 per cent potash, and 6.1 per cent nitrogen. The amount of mixed fertilizer applied to the crop of 1903 was approximately 41,000 tons. The amount of nitrogen, phosphoric acid, and potash used was as follows:

	Tons.
Nitrogen in mixed fertilizer	2,501
Phosphoric acid in mixed fertilizer	2,911
Potash in mixed fertilizer	4,141

About 6,000 tons of nitrate of soda containing approximately 900 tons of nitrogen were also used. These large quantities of the various fertilizing ingredients would have values somewhat as follows:

Nitrogen in mixed fertilizer	\$750, 300
Phosphoric acid in mixed fertilizer	232, 880
Potash in mixed fertilizer	393, 395
	<hr/>
Nitrogen in nitrate of soda	1, 378, 575
	<hr/>
Total	1, 846, 575

In addition to nitrate of soda, specially bought fertilizers, such as lime, ground coral, fish scrap, muriate of potash, tankage, and a mixture of nitrate of soda and sulphate of ammonia were applied. The value of these latter materials, together with the cost of bagging, mixing of complete fertilizers, and transportation would bring the total amount expended for fertilizers to somewhat over \$2,000,000. Besides these fertilizers, which were bought, large quantities of stable manure, furnace ash, molasses, and disintegrated mud press cakes were used, the exact quantity of which is not known.

On one plantation, as a result of careful fertilization, a gain of 100 per cent in sugar was obtained over unfertilized land. On very fertile soils, which respond less to fertilization, a gain of 20 per cent has been reached through the use of suitable fertilizing material.

Almost as much attention has been given to cultivation as to fertilization, and owing to the diversity of methods little can be said on the subject in a brief report of this nature. The most approved patterns of agricultural implements are used, and specially constructed plows, harrows, etc., have been adopted in some instances for the thorough preparation and cultivation of the soil. Steam plows are used on many estates, and deep plowing with moderate subsoiling are practiced where the depth of the staple will permit. In the rainy districts the cost of stripping; i. e., removing the dried leaves from the cane and keeping down weeds, are large items in the expense of cultivation.

During the last several years the cane fields of the Hawaiian Islands have been afflicted with a serious pest, termed the leap hopper (*Perkinsiella saccharicida*), which on many estates has greatly reduced the yield of the 1904 crop. Since getting a foothold in the Territory it has been noticed on seed cane arriving from Queensland and on Chinese cane imported for eating purposes by the Chinese population. It very probably was received originally from either Queensland or China, where it is not known as a pest, owing to the presence of natural enemies which keep it in check, or limitations exerted on its reproductive capacity through climatic causes. An inspection of all plants entering the islands is now rigidly enforced, and much labor and expense have been incurred in reducing to a minimum the chances of receiving insect and fungous pests from foreign sources. The Hawaiian Sugar Planters' Association has organized an efficient entomological bureau for the control of various cane pests, and it is expected that much will be accomplished in keeping down to a safer limit the hopper, borer, and such pests as have in the past proved highly injurious.

The prevailing low prices of sugar and high cost of labor, together with the serious loss annually incurred from insect and fungous depredations necessitate the utmost vigilance on the part of plantation mana-

gers to determine sources of loss in the mill and fields, and through technical skill in the one instance and progressive methods of farming in the other, to combat the tendency toward reduced profit which has been strongly felt from year to year.

THE COFFEE INDUSTRY.

By WM. W. BRUNER.

The coffee crop of 1903 was the largest in the history of the islands, and exceeded 3,000,000 pounds. The total value of all coffee exported to the United States and other countries for the year ending June 30, 1904, was \$184,180; for 1903 it was \$236,860, while for 1902 it was only \$126,644.

While coffee is grown in all the principal islands of the group, 95 per cent of it is produced on the Island of Hawaii, of which over 2,000,000 pounds or 80 per cent of the total Hawaiian production is produced in the district of Kona (whence the name Kona coffee), where it may be stated roughly that the industry furnishes employment to 1,000 people.

The entire area planted to coffee and now producing on the islands is under 4,500 acres. Much of the planting is classed as wild coffee; that is, the trees are not topped and are cultivated only in an irregular manner. These trees are cheaply cared for, growing somewhat under shade and in rocky ground, the growth of weeds is small, and while the crop of coffee on such trees is no more than 700 or 800 pounds per acre, it is cheaply picked, for it ripens almost uniformly. In better soil where the trees are topped, overbearing is the result, to the very great detriment of the trees, but by the application of fertilizer these trees are maintained in good condition, while the yield of coffee per acre is more than double that from the untopped, so-called wild trees.

The cost of production in Kona is about 7½ cents per pound, and the coffee is bringing the producer about 10 cents at present. The cost of production in Hamakua is probably 10 cents and should net the producer 12 cents, as the Hamakua bean is larger and more sought after by the coffee roasters. The difference in the cost of production in the two districts, which produce the bulk of the crop, is due chiefly to the difference in the cost of picking, for in Hamakua coffee does not ripen as regularly and uniformly as it does in Kona.

The price of coffee has been very low for the past seven years, but the year 1903 was the most remarkable in its history, for during it prices reached their lowest basis and production its largest maximum. While the Brazil crop has very materially failed from the enormous 1901-2 crop of 15,000,000 bags, her production has been great and there has been an oversupply of Brazilian coffee. At the same time the production of mild coffees, in which class all coffee except Brazil production is included, has been on the increase, and in 1903 was over 5,000,000 bags. This affected the sale of the Hawaiian coffees, and will no doubt have a depressing effect on the sale of the next crop. So, that while Brazilian production has fallen off, and is likely to continue to, on account of the prohibitive tax against planting in Sao Paulo,

where Santos coffee comes from, planting is not likely to take place there for four years, in the meanwhile the production of mild grades has increased from 3,000,000 to 5,000,000 bags. But it can safely be stated that the world's consumption of Brazilian coffee has gone ahead of production for the first time since 1899-1900, although in a comparatively small way, so that overproduction in Brazil, which was the most depressing factor in the coffee-producing world, has ceased. Frost in 1902 and drought in 1903 put a good many plantations out of bearing, while the long period of low prices caused hard times, without any new planting, and thousands of the laboring class are leaving the country. It is said that over 20,000 left last year.

The United States is the largest purchaser of coffee, using about 11 pounds per capita, importing in 1903 \$61,329,564 worth, of an average value of 6½ cents per pound. Four-fifths of this coffee came from Brazil and was paid for mainly in cash, for the total imports from Brazil for the year amounted to \$69,000,000, while the exports from the United States were only \$10,000,000, leaving \$59,000,000 to be paid in cash.

To show what this means in a long period, during the years 1830-1903, inclusive, according to statistics by the United States Government, the imports of coffee into the United States total 22,125,000,000 pounds, valued at \$2,500,000,000, import price.

The Dingley Bill particularly prescribes the remedy by which the United States can secure a much larger share of Brazil's trade, in that it empowers the President, when in his judgment countries supplying the United States with coffee discriminate against United States products, with authority to place a duty on the coffee imported from that country. Brazil trades more with Germany than with the United States, because the Germans are there on the ground, and while American diplomacy has been active to bring about a change, not until a reprisal by tariff duty on her coffee was broached has Brazil been inclined to act. Minister Bryan has recently been reported to have succeeded in effecting satisfactory reciprocity arrangements.

Great quantities of the lowest grades of coffee are imported regularly into the United States, and it is a well-known fact that it is the dumping ground for coffee-producing countries. If you question any grower of prominence where he markets his coffee, he will answer that he ships his better grades to Europe and his poorer ones to the United States. Anyone who has visited a Spanish country will recall with pleasure the good coffee universally found, and this is fairly true in Hawaii, and there are people who have located here from the United States who say that they never liked coffee before they came here, and perhaps they never were able to get what could be classed as coffee where they formerly lived. As a matter of fact the great majority of the American people do not know what a good coffee tastes like. This is not their fault, but it is because coffee roasters purchase only the cheapest and lowest grades to be had and use such great quantities of adulterants and coloring compounds.

The coffee planter of Hawaii and his brother in Porto Rico have an uphill road at present, because they have not only to compete on uneven terms with Central American and other producers of mild coffees, who produce on a silver and sell on a gold basis, and who employ cheap Indian labor under the mozo system; but still the Hawaiian and

Porto Rican producers have two things in their favor: First and foremost is the quality of the coffee they produce, while the second thing in their favor they are not deriving much apparent benefit from yet, is the fact that they are integral parts of the United States; but they will in time secure the advantages which this connection must bring them. Did they produce a poor and inferior coffee it would be different.

The Commissary Department of the United States Army, 91 Whitehall street, New York, solicited bids on 91,000 pounds of coffee, receivable January 26, 1904, in which the specifications called for green coffee, Rio preferred, to be well cleaned and free from dirt and stones. Could Porto Rican or Hawaiian coffee compete under these specifications? Not much was desired in the way of coffee, it simply had to be free from dirt and stones. The Commissary Department of the Army as well as the Navy should use good coffee, and that should be at least in part either Porto Rican or Hawaiian.

As a matter of fact the Commissary Department of the Army in San Francisco, in its specifications for coffee to be supplied to it, contains a joker which absolutely precludes the use of Hawaiian coffee. The specifications call for samples of various coffees, including Hawaiian, which may all be blended except the sample of Hawaiian coffee which can not be blended. This absolutely prevents the use of Hawaiian coffee, for it is a high-grade coffee and certainly can not compete with similar grades of other coffees which have the privilege of being blended with cheaper coffees. This is rank discrimination against Hawaiian coffee by an important Government department; in fact, to be fair to the Hawaiian producer, as San Francisco is the principal market for his coffee, the specifications should call for samples which must contain not less than 50 per cent Hawaiian coffee. While there has been in Porto Rico, and to some extent here, a demand that the Federal Government should help the coffee producers in some way, either by bounty or protection, they at least might hope to secure the support of the Government by the use of only American coffee in the Army and Navy.

The Hawaiian and Porto Rican coffee growers are injured in the market which belongs to them by reason of the immense amounts of low-grade coffees imported. The competition with the superior grades they can and should stand. Eliminate the poorer grades of coffee and triage, and prohibit their importation by an act similar to the tea-inspection act of 1897, and the American consumer will get good coffee *nolens volens* and do the most possible good to the producer of good coffee everywhere.

The Federal tea-inspection act, of March 2, 1897, prohibits the importation of tea below a standard to be fixed by the Secretary of the Treasury, of "purity, quality, and fitness for consumption." On February 23 this year the Supreme Court affirmed the constitutionality of this act. Eight times had it been assailed in the courts. The importance of this decision can not be over estimated. It must be remembered that prior to 1897 the United States was the dumping ground for all the tea trash in the world. As a result consumption, which was 1½ pounds in 1865, fell off to less than 1 pound per capita, while since the passage of the tea-standard act the use of tea is on the increase, and last year was 1.30 per pound per capita, due in great part to the fact that the quality is guaranteed by Federal inspection.

In connection it is interesting to quote from the secretary of the Ceylon Association, London. Mr. Leake says:

In the United States customs authorities refuse to admit the commonest grades of China tea, but to maintain the supply of cheap teas in this country quantities of rubbish have been imported here after having been rejected by the United States customs as unfit for consumption.

The manner of adopting the tea standards is through a board of seven members, appointed annually by the Secretary of the Treasury, each of whom shall be an expert in teas, and receive as compensation the sum of \$50 per annum and traveling expenses, etc. It is an honor to serve on the board. They adopted thirteen standards for 1903 and readopted the same ones this year. In the footsteps of this act there should be passed another which shall prescribe the qualities and grades of coffee that shall be allowed entrance into the United States, and it should go further and include spices, cocoa, and chicory.

Pass a coffee-standard act on the lines of the tea act, and Hawaiian and Porto Rican coffees will advance from 3 to 5 cents per pound. It would strongly advance American coffee interests, while at the same time it would protect the consumer by absolutely preventing the importation of the lowest grades of coffee.

And now is the time to be discriminating, when there is an over-supply of coffee and prices are so very low.

Hawaii enjoys some advantages by reason of her shipping connections and her situation. She should supply more coffee than she does to Japan, Australia, New Zealand, and Canada; and particularly the last, as she remits her duty of 10 per cent on coffee imported from the country of production. Greater efforts should be made to build up the coffee trade with these countries.

If the price of coffee Hawaii produces were a few cents higher, with a prospect of stability in price, immense areas can and would be planted to coffee, as the industry, while now in some localities fairly profitable, can not flourish in less-favored sections at present prices. The industry in Hawaii, though small, is well established, and the product is on the increase, due to the conviction that better prices are only a matter of time. Great advances have been made in the preparation of the coffee for the market. Each year has shown improvement in the milling and grading, and shipments go forward much more uniformly in quality and appearance, so that it can confidently be predicted that Hawaiian coffee will secure for itself the high place its quality insures it.

Quality and not price will attract the American consumer, and when convinced that he is getting the quality, he will pay the price.

THE SISAL INDUSTRY.

By the HAWAIIAN FIBRE COMPANY.

About the year 1893 the commissioner of agriculture and forestry imported some 20,000 sisal plants from Florida. The favorable results of experimental work with them developed in the formation of the Hawaiian Fibre Company (Limited). This company leased land from the Oahu Railway and Land Company, situated on the coral plain between Pearl Lochs and the Waianae Mountains, in the Ewa district,

where plants were set out on a commercial basis. The barren, thin soil of this locality has been shown to be just what is needed for sisal, and comparative tests made by the Tubbs Cordage Company, of San Francisco, have proven the Hawaiian sisal to be superior to the best Yucatan.

When first started the Hawaiian Fibre Company represented an investment of about \$37,000, but later, owing to the success of the enterprise, the superior quality of the fiber, and high price it commanded, the company increased its capitalization to \$75,000.

At the present time there are about 750 acres of land in sisal, and it is expected that the area of the plantation will shortly be considerably increased, if not doubled. Sisal is of slow growth, requiring four years before the first crop matures.

The possibilities for Hawaii in sisal cultivation are shown by the number of plantations started on the various islands. The most promising localities for the growth of sisal have been found to be the comparatively barren, dry soils of the leeward coasts. From the nature of the sisal plant, requiring but little moisture and little cultivation, there are hundreds, probably thousands, of acres of land with thin, stony soil, not suited for sugar cane, which can be utilized for sisal cultivation. One of the largest plantations started on the other islands is the Knudsen plantation on Kauai. On Molokai and Maui considerable time and money have been spent in the introduction and cultivation of sisal. On Hawaii, plantations have been started in the districts of Kona and Olaa, where the industry has become of considerable importance.

From the success of the Hawaiian Fibre Company and the condition of the industry on the other islands, it is safe to predict that the future of sisal in the Territory is now assured. As the islands have such large areas, at present mostly uncultivated, where the soil and climate are well adapted to its growth, and as it requires so little expenditure in cultivation and cleaning, owing to the superiority of the fiber over all others, except perhaps the Manila fiber, and the greater and greater demand for binding twine and cordage, the industry will be, as it now is, a profitable one, and the time is anticipated when sisal fiber will be one of the staple products of the Territory.

THE PINEAPPLE INDUSTRY.

By JAMES D. DOLE.

The pineapples raised in Hawaii are disposed of through three channels: (1) Local sales of fresh fruit; (2) shipments of fresh fruit to the coast; (3) as canned fruit.

Taking them in order:

First. The sales of fruit in the local market are so small as to be of little importance. Honolulu and the sugar plantations furnish an outlet for a limited quantity of pineapples at good prices; but as 3,000 or 4,000 pines per week will at any time glut the local market, it may be considered of little commercial importance.

Second. Shipments of fresh pineapples to the Pacific coast on any large scale are badly hampered by the irregular, uncertain, and infre-

quent sailings of steamers. An interval of ten days or two weeks between sailings of freight boats during the height of the pineapple crop causes a heavy loss to any grower who depends on this outlet for his crop. Pineapples, however, are shipped during the season on every steamer and the business promises to grow. The system recently started by a local concern of delivering fresh pineapples prepaid to any address on the coast is proving successful and is already increasing the demand for the Hawaiian fruit.

Third. The canned pineapple industry has been developing as rapidly as the prevailing scarcity of plants would allow. Approximately 265 acres have been planted during the year—15 acres on Hawaii, 15 on Maui, and 235 on Oahu—making a total acreage planted of about 415 acres. The number of plants now set out in the Territory is approximately as follows: Maui, 300,000; Hawaii, 350,000; Oahu, 2,400,000. Two canneries have been erected during the past year, one by the Haiku Fruit and Packing Company, at Haiku, Maui, and one by W. W. Bruner, at Napoopoo, Hawaii. The canneries of the Pearl City Fruit Company and the Hawaiian Pineapple Company on Oahu have been enlarged. The output of canned pineapples in 1903 was approximately 8,000 cases, and it is expected that the 1904 pack will be close to 20,000 cases.

Pineapples in Hawaii are of unusually good quality because they are grown and ripen to full maturity in the sunshine before they are picked. The fruit is also canned on the spot, practically in the field, as the canning factories are located on the plantations. Hawaiian pineapples are now distributed throughout the mainland of the United States.

VANILLA.

By EDWARD H. EDWARDS.

Of itself the most valuable of what may be termed the aerial parasites, the vanilla vine promises to give to the tropical islands of the United States a new source of revenue and an added importance in the domestic economy of the country. For half a century at various points throughout the Hawaiian archipelago vanilla plants have been grown, more as a matter of experiment or for effect than in an attempt to produce a profitable crop. The plant has flourished wherever it was given attention, and to the efforts of Allen Herbert, at one time commissioner of agriculture under the Kingdom, is largely due the success which now seems about to crown the efforts to make productive this new industry.

Tropical in its nature, thriving best upon the soft, spongy growths, it was but natural that the vanilla plant should thrive wonderfully in our protected districts. Experience has proven that nowhere do the conditions necessary exist in greater perfection than in the Kona or southern side of the large island of the group, Hawaii. There is found a rich soil, decomposed lava, with an average of 80 to 100 inches of rainfall, and the growth of primitive forest to furnish the shelter for the vines. Although an aerial plant, the vanilla adapts itself to a variety of soils. For instance, where a fern tree has found foot-

hold among the rocks the vanilla will make its home, or in the free soil of the Aa or light lava, it will grow as luxuriantly. The vines require support, and it is best for their success that these be natural rather than artificial. These facts make possible a new development among the deserted coffee plantations, which ceased to be profit paying some time since. The tree fern and ti plant both offer excellent natural supports and furnish the needed sustenance for the vines.

The great difficulty so far has been in the procuring of the cuttings from which to start the plantation. Importations have been made from India and from the Caribbean Sea and Central America, but a majority of these plants have failed to adapt themselves to the climate. Some few have lived and from these cuttings were made within the first year, so that the original vine multiplies itself many times. In the experience of the pioneer in this line in the islands, E. H. Edwards, Vanilla Park estate, Napoopoo, more than 20,000 cuttings were imported to get 5,000 vines; or, to put it differently, bringing in a sufficient number of plants to start a 20-acre plantation he found himself with but 5 acres growing.

The vine grows rapidly and bears somewhat profusely once it has made its home in its new surroundings. In the island of Hawaii, which is absolutely tropical on its southern slopes, though tempered by trades to the north, vines have been known to bloom within ten months after planting, but it is not fair to expect a crop until the second year. Once planted, with the ground fairly clean around the trees used as natural supporters, the cost of maintaining the plantation is very small. Several times during the year the grass and weeds would have to be cut from about the vines, but other than that the trimming and gathering of the pods furnish light work for the daughters of a family. The pods picked at their maturity are cured by drying under cover, but this is light work and the process would be readily learned. In fact it is probable that once the industry gets a secure foothold central curing establishments will spring up in the midst of any producing district.

As to the future of the industry, it would appear that nothing more is needed than that production be prosecuted, for the demand seems almost unlimited. One New York importer has asked for from 10,000 to 20,000 pounds a year of high-class product, and on this the price must vary from \$4 to \$8.50 per pound. Each vine will produce about 25 full-sized pods per year. To be of the very first class these pods must run 7 inches in length, all the shorter ones classing as inferior grades. As it takes 100 of the cured pods to make a pound, the 1,000 vines usually planted to each acre would therefore mean 250 pounds of cured pods to each acre of the plantation. It can thus be seen that a vanillarie of 5 acres should give a family a comfortable income, once the vine is in full bearing. The use of frequent cuttings from the growing vines makes it possible to renew the bearing vine and keep the plantation in constant health, so that in the absence of some disease or pest, none of which are now known, the productiveness of an estate would be practically interminable.

THE LIVE-STOCK INDUSTRY.

By ALBERT F. JUDD.

It is not an easy matter to report briefly the present state of the live-stock industry in Hawaii. In the first place there is little information available, even in the office of the secretary of the Hawaiian Live Stock Breeders' Association. The association is young. An accurate report at the present time could be made only after personal inspection of the ranches on each island. The second difficulty is caused by the absence of any history of the industry, although cattle and sheep have been raised here, and horses also, since the days of Vancouver.

RANGES.

It is difficult also to concisely describe the ranches themselves, situated as they are on the eight islands, separated by rough channels from the principal market in Honolulu, and each of the ranches having its own peculiar topographical conditions. While the ranches on the low levels, namely, below 2,000 feet elevation, have many characteristics in common, there is a great difference among them, due to whether or not they are on the windward or leeward side of the island, the rainfall on the leeward side being much less than on the windward. Barren lava flows have their influence. The ranches above the 2,000 feet elevation line are in another class, all of them practically being on the islands of Maui and Hawaii.

GRASSES.

On the low-level ranches on the leeward sides the grasses in the pastures become dry in the hot summer months. The pastures at this time are assisted, however, by the beans of the algeroba tree. As this tree spreads, as it does readily, being carried in the dung of animals, the fodder problem during the summer is lessened. It is on the leeward sides of the islands that this tree has taken its greatest hold. Apparently it has begun to be acclimatized on the windward slopes, although it has as yet made little impression.

After the winter rains these pastures are all that could be desired. Their lack of permanence, however, makes their present condition undesirable.

The lack of distinct seasons and regularity in rainfall have to be taken into account by every ranchman. These facts complicate for him the problem of having his herds always well fed.

There are a number of indigenous grasses on the islands which are excellent feed and are of great value for fattening purposes. They are mostly grasses that can not stand continuous heavy stocking, and large areas of dry and rocky country, which in the past were considered the best fattening lands, are nearly denuded at this time. Much has been done by fencing off such places and giving the location an entire rest for a period of time, which invariably results in the Hawaiian grasses again taking hold.

The introduction of dry range grasses, however, will do much for this class of country. Experiments are now being conducted and the importation of seed is steadily going on in the different estates throughout the Territory. On the moister upper elevations a great variety of

the best grasses in foreign countries have been established here within the past few years. Among the grasses which are doing well are the perennial rye grass, Kentucky blue grass, redbtop, orchard grass, Natal redbtop, *Bromus inermis*, *Paspalum dilatatum*.

The introduction of new grasses has had much to do with the increased carrying capacity of the various ranges. While much of the land formerly used for cattle has been taken for sugar plantations, and much more destroyed, so far as immediate use is concerned by lantana, yet the carrying capacity of the islands to-day is far greater than it ever was before. Of course this is not alone accounted for by a greater diversity of good feed, but is largely due to the general improvement of the ranges in consequence of intelligent distribution of water, better stock, and also in the construction of paddocks, which allows the grazer to regularly rest portions of his ranch whenever so desired, and minimizes the danger from overstocking and running out some of the best grasses growing upon the land.

This question of fodder in the pastures is now mentioned because of its intimate relation to the present state of the live-stock industry.

HORSES.

From what has been stated, it will be seen that horses are raised under the best conditions on the uplands, where the mares are well fed all the year round. The hard conditions on the lowlands are mainly responsible for the degenerate kanaka plug and rice-field plow horse.

This thought leads me to say that the island of Hawaii produces a surplus of horses of the broncho type superior to those recently passing through Honolulu from San Francisco to Manila on the U. S. army transport *Dix*, and possessing the additional advantage of not needing to be acclimatized for use in the Philippines, and also of being 2,000 miles nearer Manila. As Hawaii has horses to sell, it surely is not out of place to call the above matter to your attention.

CATTLE.

The cattle industry has not reached the feeding stage. This is due to the absence of fodders, which can be grown cheaply. Experiments are now being made with the growing of corn in the Kula district on the island of Maui, and will shortly be undertaken on Molokai. It has been suggested also that the waste from the sugar mills, together with the cane tops now not utilized, might be available also for this purpose. All the cattle and sheep slaughtered on the islands are what would be called "grass fed."

Different ranges are adapted to different breeds of cattle; it can not be said that any one breed are the cattle for the islands. Without any accurate data, I should say that the Hereford is the most popular, or, at least, should be in most locations. There has been a large introduction of Herefords, Shorthorn, Angus, Devons, and Holsteins.

Up to within ten years ago very little was done in the introduction of superior stock. Importations were made before this time, but were small in number and at long intervals of time; so much so that it made no decided impression upon the herds. Within recent years, however, the grazers have seen the importance of introducing new blood and

grading up their stock. Large numbers of pure-blooded stock are being introduced annually, which has already made a decided improvement, and within a few years stock on most ranches should compare favorably with those of other countries.

Every herd of cattle has a residuum of old blood in it, cattle descended and inbred from the old Spanish cattle landed here by Vancouver. One of the problems for the ranchman is the turning of this undesirable part of his herd into cash. The conformation of the stock, with its slab sides and long legs, is such that even when in good condition much of the weight is bone. The blood is hardy but matures late. The stock is wild and often for this reason is badly bruised while going to market. The color of the stock is often yellow or black and tan, with occasionally a brindle hide. The market in Honolulu will not admit of the sale of a big lot of this stock at once, so each ranch has to try to work them off, often to the neighboring plantations or local market. This is being done by all intelligent ranchmen as fast as possible. It is upon this blood that most of the herds are built.

The 8,242 head of cattle slaughtered in Honolulu between July, 1903, and July, 1904, averaged 445 pounds per head. This includes cows as well as steers. Separate statistics are not available.

"Liver fluke" is still a scourge in certain localities. No cure is known for this disease among the ranchers. "Red water" is also prevalent in a few herds. The Territorial laws concerning quarantine against the diseases of animals appear to be insufficient. Until this matter is taken hold of by the Federal Bureau of Animal Industry and an inspector with full authority is stationed in this Territory there is a constant danger that diseases like "Texas fever" and "rinderpest" may slip in and decimate our herds.

The greatest pest on the ranches is the horn fly introduced some six or seven years ago with stock from the mainland. They bother cattle and horses day and night. On the latter they often cause sores on the backs even of brood mares which have never been handled. An unsuccessful attempt was made by our association in 1902 to import tumble bugs from Mexico to combat the pest, and it is hoped that Messrs. Koebele and Perkins, the entomologists who are now in the antipodes, may be able to send us some bug or insect to prey on the larvæ and thus bring relief to the herds.

At the present time the Territory supplies all the beef consumed locally. As methods improve there is a probability that there will be an overproduction and new markets must be sought. Possibly they may be found in supplying the United States Army transports en route to Manila. It is believed, however, that one or two severe droughts such as we have had in the past will probably stop overproduction.

Honolulu is the chief market for beef and mutton in the Territory. Hawaii has but three harbors in which the steamers of the interisland fleet can tie up to the wharf—Honolulu, on the island of Oahu; Hilo, on the island of Hawaii, and Kaunakakai, on the island of Molokai.

From July 1, 1903, to July 1, 1904, from the last-mentioned port there were shipped to Honolulu 809 head of cattle, none from Hilo, and 5,703 from the other ports on the islands (the Oahu-grown cattle are not figured in this account). Every one of these 5,703 head had to be roped, tied to a ship's boat, towed to a steamer, and hoisted aboard before making the trip across the channels to Honolulu. This

is one of the difficulties of the live-stock industry in Hawaii. Anyone can appreciate the fact that this method of sending to market can not compare with sending to market on the hoof or by train. It is doubtful, however, whether these conditions can be much improved.

DAIRYING.

Outside of the town and village centers dairying is carried on primarily for the advantage which is derived from taming and handling the young stock. Butter is made on most ranches, but, considering the number of cattle carried on the ranges, to a very small extent.

WATER.

Water is being intelligently developed on each ranch, and the multiplication of well-watered paddocks is the goal toward which every ranch is working.

It is realized that an improvement in the herd and greater weights on the butcher's account sales are dependent upon the carrying out of the above ideas.

CENSUS.

No census of the live-stock industry has yet been taken and it is difficult to make estimates of value. About the only accurate thing is the number of animals slaughtered in Honolulu. In addition to this each ranch slaughters locally or sells to the neighboring sugar plantations. Without trying to be more than approximate, I estimate Hawaii's herd as follows: Cattle, 140,000; sheep, 95,000.

SHEEP.

Our sheep are inferior in blood and conformation to our horses and cattle. Inbreeding, disease, and ignorance seem to have caused this present condition. In some herds the mortality among the lambs from lungworm, etc., reaches as high as 35 per cent. A strong effort is now being made to do away with these evils and to breed a dual-purpose sheep with sufficient stamina for all local conditions. Few of our pastures are free from burrs, mostly from introduced species of grasses and plants, and the wool suffers in consequence.

The herds do not yield enough mutton to satisfy local consumption in Honolulu, but in a few seasons they will be able to do so.

GOATS.

Goats run wild in many places and have caused and are now causing much damage to the forests and rocky pastures. They are not herded for profit, as far as I know, by any rancher or farmer.

MULES.

Mules are being raised in small numbers. Those bred from the average Hawaiian-bred mare are too small for harness, but make good saddle and pack animals. Most of the mules used upon the sugar plantations for hauling are imported from the mainland.

HINNIES.

On parts of Hawaii jackasses run wild. They are used as beasts of burden, though not much larger than a good-sized sheep. One rancher is experimenting in the breeding of hinnies, but the experiment has not yet advanced sufficiently to determine its success.

Progress is being made in the live-stock industry, and as better methods become more general and more intelligent ideas are put into operation more satisfactory will be the reports made upon it.

RAPID-TRANSIT SERVICE.

By C. G. BALLENTYNE.

Rapid transit in Honolulu as a great public convenience tells its own story daily. Handsome and comfortable electric cars, upon a network of routes, are well filled for eighteen hours a day. Outlying sections of the city, including some of its most picturesque environs, formerly remote and expensive of access from the business center, are becoming convenient for home sites and recreation purposes to all the busy inhabitants. Points of interest, capable of being visited within the shortest space of daylight that a calling ocean liner stays, have been multiplied with the extension of the electric-car tracks. The burden of society is eased by the cheapness and celerity, together with cleanliness, with which folks are now whirled to and from evening entertainments. Band music in the evenings and holidays may now be enjoyed by the multitude, however far from their homes the rendezvous, without long journeys on foot. Parents have a choice of schools for their children, so far as distance is concerned, at special rates of fare, which makes this expense scarcely appreciable in the sum total of the family's educational outlay.

The original rolling stock equipment of the Honolulu Rapid Transit and Land Company consisted of 35 motor cars and 10 trailers. This was found to be inadequate, both as to the number and seating capacity of the cars. The directors have therefore ordered additional equipment to consist of 10 motor cars of the open type, having a seating capacity of 56 persons each. They have also decided to splice some of the small motor cars and trailers, thus making one motor car of large capacity. In the month of May last oil was substituted for coal for steam generating purposes, with good results as to economy, efficiency, and cleanliness. Mr. C. G. Ballentyne, manager of the company, states that there has been 2.206 miles of new single track laid since June 30, 1903, chiefly in branches to the main lines. This is exclusive of 2,900 feet of turn-out construction. The construction of the Beretania street section, 2.447 miles, will complete the system, with the exception of a short extension of the King street line to the proposed military post at Kahauiki, about 3,500 feet.

The entire system now embraces the following:

	Miles.
The King street line, extending from Kalihi to Diamond Head, at Waikiki...	7.467
The Hotel street line, extending from Liliha and Wyllie streets, to Alexander and King streets.....	4.811
The Fort and Nuuanu streets line, extending from the Honolulu Iron Works, on Ala Moana, to the mausoleum, on Nuuanu street	2.206

	Miles.
The Beretania street line, operating from Fort and Allen streets, to and along Beretania street, to Alexander and King streets	2. 562
The Alakea street line, extending from Allen street to Pauoa	1. 240
The Manoa Valley line, extending from Wilder avenue up to Manoa Valley ..	1. 745
The Waialae road line, operating from Alexander and King streets to Waialae.	2. 476
The South street branch .....	. 277
The River street section, extending from Fort street along Queen street to River and King streets.....	. 411
Total mileage operated.....	23. 195

Number of cars in regular service, 25.

The following is a condensed statement showing the results of the car operations for the year ending June 30, 1904, with figures for the previous year for comparison:

	Year ending June 30—		Increase.
	1904.	1903.	
Passenger-car mileage.....	1, 374, 460. 20	968, 886	405, 574. 20
Passengers carried	6, 528, 391	4, 799, 933	1, 728, 458
Gross earnings.....	\$318, 706. 80	\$235, 912. 13	\$82, 794. 67
Operating expenses	\$178, 643. 63	\$128, 590. 85	\$50, 052. 78
Net earnings.....	\$140, 063. 17	\$107, 321. 28	\$32, 741. 89
Fixed charges, including interest on bonds, taxes, etc..	\$47, 504. 15	\$32, 563. 50	\$14, 940. 65
Net income.....	\$92, 559. 02	\$74, 757. 78	\$17, 801. 24
Per cent of operating expenses to earnings	56. 06	54. 50	1. 55
Per cent of operating expenses and fixed charges to earnings.....	85. 09	68. 30	16. 79
Capital stock outstanding.....	\$1, 140, 000. 00	\$1, 000, 000. 00	\$140, 000. 00
Bonded debt	\$610, 000. 00	\$425, 000. 00	\$185, 000. 00

NOTE.—From the operation of horse-car lines (July 1 to December 23, 1903), the earnings were \$13,288.51 and operating expenses \$19,637.32. These figures are not included in the above statement

During the year the company acquired the property and franchises of the Hawaiian Tramways Company's horse-car system, embracing about 12½ miles of track, 36-inch gauge, and dismantled the same in its entirety. Certain streets occupied by this company had already been occupied by the Honolulu Rapid Transit and Land Company, and of the remaining streets covered by the horse-car franchises the Rapid Transit Company has constructed its tracks on Beretania street, Nuuanu street, part of Fort street, Alakea street, and River street.

The following exhibit shows the results of the rapid-transit system, by months, during the last calendar year:

Month.	Mileage.	Passen- gers.	Earnings.	Operating expenses.	Net earnings.
January	78, 661. 63	407, 312	\$19, 510. 20	\$10, 836. 06	\$8, 674. 14
February	84, 300. 75	387, 230	18, 596. 05	11, 171. 27	7, 424. 78
March	93, 026. 39	438, 606	20, 989. 55	12, 537. 24	8, 452. 31
April	90, 208. 39	417, 211	20, 106. 70	11, 485. 83	8, 620. 87
May	98, 435. 51	467, 718	21, 940. 90	11, 767. 09	10, 173. 81
June	93, 807. 95	476, 390	23, 076. 65	11, 798. 94	11, 277. 71
July	103, 383. 87	498, 911	24, 641. 25	13, 325. 94	11, 315. 31
August	106, 890. 95	513, 633	25, 324. 30	14, 047. 04	11, 277. 26
September	102, 979. 68	510, 979	24, 568. 20	12, 586. 99	11, 981. 21
October	108, 104. 14	540, 296	25, 784. 20	13, 118. 63	12, 665. 57
November	109, 016. 86	534, 627	25, 855. 75	14, 458. 33	11, 397. 42
December	119, 263. 60	606, 244	29, 474. 30	15, 385. 56	14, 088. 74
Total	1, 183, 079. 72	5, 789, 157	279, 873. 05	152, 518. 92	127, 354. 13
Income from other sources.....					4, 445. 96
Net income after deducting operating expenses					131, 800. 09
Fixed charges, bond interest, taxes, insurance, etc.....					41, 607. 14
Net income over all charges					90, 192. 95

Month.	Per cent expenses to income.	Miles in operation.
January.....	54.59	12.083
February.....	59.09	14.200
March.....	58.46	14.200
April.....	56.18	14.200
May.....	52.79	14.200
June.....	50.28	14.723
July.....	53.38	15.855
August.....	54.59	16.642
September.....	50.61	16.840
October.....	50.19	18.090
November.....	55.15	18.867
December.....	51.49	19.594
Average.....	53.64	15.799

SAFEGUARDS FOR THE PUBLIC.

The company's franchise, act 68, session laws of 1898, regulates the capitalization and the per cent of dividend which may be paid to stockholders, and safeguards the public against excessive charges. Section 37 limits the amount of the capital stock to "the actual cost of the property of the railway, and not over 25 per cent of such cost in addition thereto."

Section 17 provides: (1) For "the expense of operating, repairs, renewals, extensions, interest, and every other cost and charge properly or necessarily connected with the maintenance and operation of the said railway;" (2) "dividends may be paid to stockholders not to exceed 8 per cent on the par value of the stock issued;" (3) "a sinking fund (computed at 5 per cent) may be created for the redemption of any bond which may be issued or other record debt, and the capital at the expiration of the franchise;" and (4) "the excess of income (over and above the amount necessary for the foregoing purposes) shall be divided equally between the government of the Territory of Hawaii and the stockholders of the said corporation."

Section 9 regulates the "rates of fare," and provides that "any person riding upon the cars of said railway shall be liable to pay for such transportation the following rates: 'For a continuous ride between Diamond Head and Moanalua (upward of 8 miles) or makai (inland) of a line drawn parallel to the seacoast and 1½ miles distant therefrom, not to exceed 5 cents: *Provided*, That school children under 17 years of age, in going to and from school, shall not be required to pay over half fares, for which purpose tickets shall be issued.'"

Subsection 3 provides for the issue of transfers "from one car to another upon a connecting line."

Subsection 4 provides that the company "shall make reasonable and just regulations, with the consent and approval of the governor, regarding the maintenance and operation of said railway."

Policemen, firemen, and letter carriers, when on duty and in uniform, are carried free.

COMMERCE AND NAVIGATION.

THE COMMERCE OF HAWAII.

By E. R. STACKABLE.

The first tariff act of the Kingdom of Hawaii, entitled "An act for the regulation of taxes, duty, and government property," was approved May 11, 1842, and took effect January 1, 1843. Section 7 of this act read as follows:

It is furthermore enacted that from and after the first day of January in the year 1843 there shall be an ad valorem duty of 3 per cent laid on all goods, wares, and merchandise and on every article of trade imported to these Hawaiian Islands from foreign nations. None of the above articles shall be landed on these shores until the duty be paid or bonds for payment be given and the harbor master has given his consent, and he will not give his consent unless the owner of the property conforms to the above requirements.

It may be interesting to know that the first shipment of merchandise into Hawaii paying duty was brought by an American vessel, the *Vancouver*, from the Columbia River, consigned to a Mr. G. T. Allen, agent for the Hudson Bay Company, the entry for which was made on January 6, 1843, by Capt. A. Duncan, and consisted of 695 barrels of Columbia River salmon, valued at \$4,170, and 160 planks 4 inches by 12 feet, valued at \$307.20, on the total amount of which an ad valorem duty of 3 per cent, or \$134.32, was collected.

Fifty-three years prior to the establishment of a custom-house in the Kingdom of Hawaii the first tariff act of the United States was passed, entitled "An act for laying a duty on goods, wares, and merchandise imported into the United States," which was approved on July 4, 1789, and went into effect August 1 of the same year.

Mr. James Madison introduced the subject of the tariff and the bill above referred to in the House of Representatives on the 8th day of April, 1789. Part of his speech on that occasion is even of interest now, as the collection of revenue by this means has met with universal approval. Mr. Madison said:

I take the liberty, Mr. Chairman, at this early stage of the business, to introduce to the committee a subject which appears to me to be of greatest magnitude; a subject, sir, that requires our first attention and our united exertions. The deficiency in our Treasury has been too notorious to make it necessary for me to animadvert upon that subject. Let us content ourselves with endeavoring to remedy that evil. To do this a national revenue must be obtained; but the system must be such a one that, while it secures the object of revenue, it shall not be oppressive to our constituents. Happy it is for us that such a system is within our power, for I apprehend that both these objects may be obtained from an impost on articles imported into the United States.

The present tariff of the United States, approved July 24, 1897, (known as the Dingley bill) took full effect in this Territory on June 14, 1900, and the Federal custom-house was established on the premises formerly used for customs purposes under the Republic of Hawaii. (See sec. 88, act of April 30, 1900.)

The revenue collected through customs in the Territory of Hawaii is large in comparison with that of other communities, and is all the more striking because it is taken from within a limited area and a population of but about 155,000, while the revenue from customs in other ports is taken from a large population tributary to them.

The customs collections in Hawaii from June 14, 1900, to June 30, 1904, have been as follows:

1900 (June 14 to 30).....	\$45,523.99
1901.....	1,219,338.79
1902.....	1,327,798.37
1903.....	1,193,677.83
1904.....	1,229,492.15
Total.....	5,015,831.13

In 1903 the following customs districts in the United States collected over \$1,000,000:

1. New York.....	\$182,774,815.67
2. Boston.....	24,030,350.53
3. Philadelphia.....	22,973,897.43
4. Chicago.....	9,751,644.72
5. New Orleans.....	8,670,585.07
6. San Francisco.....	7,850,705.35
7. Baltimore.....	5,417,360.70
8. St. Louis.....	2,035,054.62
9. Tampa.....	1,301,986.36
10. Detroit.....	1,272,555.58
11. Hawaii.....	1,193,677.83
12. Newport News.....	1,120,468.76
13. Cincinnati.....	1,106,010.09
14. Cuyahoga (Cleveland).....	1,088,609.32
15. Vermont.....	1,051,245.99
16. Puget Sound.....	1,027,774.04

From the above it will be seen that Hawaii was eleventh on the list, collecting more than such large places as Newport News, Cincinnati, Cleveland, and the entire Puget Sound region.

Since 1897, the year before the passage of the joint resolution of annexation, approved July 7, 1898, the exports from this Territory to the United States have practically doubled, increasing from \$13,687,799 to \$25,157,255 in 1904.

Turning to the import side, the figures show an even larger growth. The imports from the United States grew from \$4,690,075 in 1897 to \$11,987,050 in 1904. These latter figures, however, are not for the banner year. Following annexation, the commerce of Hawaii was stimulated by the influx of new capital, and in 1901 there was imported from the United States over \$22,000,000 worth of goods, while the banner year for exports was 1903, in which the value exceeded \$26,000,000. This falling off is undoubtedly due to the depression that has existed here of late.

Total value of all articles imported from foreign countries and exported from the District of Hawaii for the fiscal year ending June 30, 1904.

Countries.	Imports.	Exports.
United States	\$11,987,050	\$25,157,255
Great Britain	622,465	492
British colonies	904,772	23,120
Germany	347,359	558
Hongkong	189,101	14,027
Japan	1,205,055	5,090
Chile	506,955	
France	8,778	18
Other countries	13,156	4,315
Total	15,784,691	25,204,875
Shipments received from the United States		\$11,987,050
Imports from foreign countries		3,797,641
Total		15,784,691

A remarkable exhibit is made by comparing the trade growth per capita of population in Hawaii, which shows an increase from \$131 up to \$247, under annexation, for every man, woman, and child in the country—a total per capita of trade that is more than eight times greater than that of the trade per capita for the entire United States. Thus:

Hawaii's per capita of trade.

Fiscal year.	Imports.	Exports.	Total.
1897	\$33.50	\$97.77	\$131.27
1898	42.20	122.76	164.96
1899	66.46	127.36	193.82
1900	90.00	138.05	228.05
1901		186.02	
1902		164.86	
1903	72.27	174.95	247.22
1904	105.23	161.37	273.26
1903, per capita foreign trade of the United States			30.43

The principal sources from which foreign goods were received in 1903 were: Japan, \$910,686, mostly saki, rice, and other provisions; British East Indies, \$437,967, mostly jute bags; Germany, \$432,498, miscellaneous merchandise; Australia, \$382,494, almost entirely coal; Chile, \$271,173, nitrates; United Kingdom, \$259,311, miscellaneous merchandise; Hongkong, \$197,083, Chinese provisions and other goods.

Thus there remained only \$100,000 worth of goods supplied by all other foreign countries.

Hawaii's staple product for export is, of course, sugar, and its output has more than doubled in quantity and in value within the past eight years. As this is the principal commodity that affects the prosperity of the Territory, its importance will be realized from the following exhibit:

Quantity and value of sugar exported.

Year ending June 30—	Pounds.	Value.	Price per pound.
			<i>Cents.</i>
1896.....	352,175,269	\$11,836,796	8.22
1897.....	431,196,980	13,164,379	3.05
1898.....	499,766,798	16,660,109	3.33
1899.....	462,299,880	17,287,683	3.72
1900.....	504,713,105	20,392,150	4.05
1901.....	690,877,934	27,093,863	3.92
1902.....	720,553,357	24,147,884	3.35
1903.....	774,825,420	25,665,733	3.31
1904.....	736,491,992	24,359,385	3.30

All of this sugar is sold in New York or San Francisco, and it affords cargoes for American steamers and sailing vessels amounting to almost 400,000 short tons, besides the smaller shipments of coffee, sisal, fruits, hides, etc., which are shown in the following table, as taken from official records of the custom-house:

Total value of domestic products shipped to the United States and exported to foreign countries during the fiscal year ending June 30, 1904.

Articles.	Quantity.	Value.
	<i>Pounds.</i>	
Sugar, raw.....	736,491,992	\$24,359,385
Coffee, raw.....	1,481,968	184,180
Rice.....	40,261	1,629
Fruits.....		128,624
Honey.....		17,947
Hides.....	970,381	74,331
Wool, raw.....	169,938	22,406
Other.....		384,047
Total.....		25,172,549

Domestic products shipped to the United States for the year ending June 30, 1904.

Articles.	Quantity.	Value.
	<i>Pounds.</i>	
Sugar, raw.....	736,491,992	\$24,359,385
Coffee, raw.....	1,372,249	169,172
Rice.....	39,911	1,610
Fruit.....		127,725
Honey.....		14,346
Hides.....	970,381	74,331
Wool, raw.....	169,938	364,558
Other.....		22,406
Total.....		25,133,533

Domestic exports to foreign countries for the year ending June 30, 1904.

Articles.	Quantity.	Value.
	<i>Pounds.</i>	
Coffee, raw.....	109,719	\$15,006
Rice.....	250	19
Fruits.....		899
Honey.....		3,601
Other.....		19,489
Total.....		39,016

It will be seen from the foregoing that Hawaii's exports to foreign countries are practically nil, and that almost the entire exportable commodities from these islands go to the mainland.

Exports for the year ending June 30, 1904.

Domestic merchandise to foreign countries	\$39, 016
Domestic merchandise to United States	25, 157, 255
Foreign merchandise to foreign countries	8, 604
Foreign merchandise to United States	23, 722
Total	25, 228, 597
Total specie exported to United States and foreign countries.....	285, 493

Last year there were 488 vessels of 933,847 tons that entered Hawaiian ports, and 497 vessels of 936,627 tons that cleared for mainland and foreign ports. Of these there were 377 American vessels of 667,350 tons entered and 387 American vessels of 672,539 tons that cleared. This indicates that more than 70 per cent of the total commerce of Hawaii with the mainland and all foreign ports is conducted under the American flag, as follows:

Nationality.	Entered.		Cleared.	
	Vessels.	Tonnage.	Vessels.	Tonnage.
American	377	667, 350	387	672, 539
Foreign	111	266, 497	110	264, 088
Total	488	933, 847	497	936, 627

But there are many foreign steamers calling here that carry no freight to or from the mainland, hence the proportion of trade carried by American vessels is even larger than the foregoing figures would indicate, and can better be shown by giving the values of the merchandise received and exported by vessels of different nationalities. This gives a total of \$26,597,353 to American vessels out of a total of \$29,002,516, or 90 per cent of the whole.

Value of the carrying trade to and from the Territory of Hawaii for the year ending June 30, 1904.

Nationality.	Imports.	Exports.
American	\$1, 414, 940	\$25, 182, 413
British	1, 474, 521	15, 817
French	25, 757	.....
German	284, 606	.....
Italian	15, 402	.....
Norwegian	15, 173	.....
Other	567, 242	6, 646
Total	3, 797, 641	25, 204, 875

Total number of vessels entering and clearing in the district of Hawaii during the fiscal year ending June 30, 1904.

Ports.	Coastwise. ^a				Foreign.			
	Entered.		Cleared.		Entered.		Cleared.	
	Number.	Tons.	Number.	Tons.	Number.	Tons.	Number.	Tons.
Honolulu	235	469,959	290	524,966	176	391,351	106	316,590
Hilo	33	41,530	40	50,842	3	3,547		
Kahului	9	8,099	23	19,369	12	12,157		
Koloa	2	1,012	20	18,076			1	994
Mahukona	17	5,550	18	5,850	1	642		
Total	296	526,150	391	619,103	192	407,697	106	317,524

^aThe figures under the title "coastwise" refer to American vessels doing business between Hawaiian and mainland ports, but do not include vessels engaged in the traffic among the Hawaiian Islands.

Total number of vessels entering and clearing in the district of Hawaii.

	Entered.		Cleared.	
	Number.	Tonnage.	Number.	Tonnage.
Coastwise ^a	296	526,150	391	619,103
Foreign	192	407,697	106	317,524
Total	488	933,847	497	936,627

^aThe figures under the title of "coastwise" refer to American vessels doing business between Hawaiian and mainland ports, but do not include vessels engaged in traffic among the Hawaiian Islands.

Statement of vessels entering and clearing in the district of Hawaii for the fiscal year ending June 30, 1904.

Nationality.	Entered.		Cleared.	
	Vessels.	Tonnage.	Vessels.	Tonnage.
American	377	667,350	387	672,589
British	74	174,622	75	177,563
Japanese	19	65,487	18	62,027
German	6	8,680	5	6,885
French	2	4,186	2	4,186
Italian	3	4,150	3	4,150
Norwegian	3	3,680	3	3,680
Chilean	4	5,692	3	3,896
Swedish			1	1,711
Total	488	933,847	497	936,627

STEAMSHIP COMMUNICATION.

By J. G. ROTHWELL.

There are a number of first-class steamers running between Honolulu and San Francisco, but only one of them makes its terminus at this port, the others merely touching here while en route to the Orient or Australia. The Pacific Mail Line now has the *Korea*, *Siberia*, *Mongolia*, and *Doric*, with the *Manchuria* coming. The Toyo Kisen Kaisha Line withdrew its steamers owing to the war between Japan and Russia, but one of its boats has now been replaced on the line. This is a service to Hawaii only to the extent that the Japanese steamers carry mails.

The Oceanic Steamship Company has the *Alameda*, *Sierra*, *Sonoma*, and *Ventura* calling here, the last three named going on to Samoa and Australia. Practically, then, there is only one steamer, the *Alameda*, that is employed in regular service between Honolulu and San Francisco.

Transportation charges are at present, by steamer, \$75 first class either way, or \$135 for the round trip; second class, \$50; sailing-vessel rate, \$40. The rate is the same to San Francisco whether the passenger travel direct by American steamer or by British steamer to Vancouver and thence to destination by rail. The same is true if the passenger for Vancouver, British Columbia, go direct by British steamer, or through San Francisco and by rail to the North. For twelve months efforts have been directed toward securing reductions of fares, but without avail.

In addition to the passenger lines mentioned, the Hawaiian-American Line sends freight steamers around the Horn between Honolulu and New York, and has one vessel in the trade between this city and San Francisco. The various lines of sailing packets between this port and San Francisco and New York employ some 20 vessels, and a large number of deep-water ships are called for each year in addition.

The operation of the coasting laws, under existing conditions, has diverted travelers from these islands, and is building up travel in and across the Pacific by other routes. The chamber of commerce in this connection adopted the following resolution on December 3, 1903, as its sense:

Whereas, the operation of the United States navigation laws prevents the carrying of passengers between the Pacific coast ports of the United States mainland and Honolulu in other than American vessels, thereby seriously inconveniencing the business public and discouraging intending tourists from visiting this Territory;

Whereas, the coasting laws of the United States are applied in a manner not contemplated by their framers; in fact, noncontiguous territory until now has never been included in the United States;

Whereas, travel to and from this port is hampered by the fact that only seven American steamships are now in the passenger trade between Honolulu and the mainland, while an equal number of foreign steamers, carrying the United States mail, ply between this port and San Francisco;

Whereas, the restrictions of travel between this port and the mainland to American vessels does not secure to them the transportation of all passengers destined from these islands to the American continent, but diverts to British Columbia a large number of wealthy tourists and business men who would otherwise travel through the United States;

Whereas, for the same reasons, outward-bound passengers and tourists from the Pacific coast are diverted from Honolulu to Japan and China:

Be it resolved, That the Territorial Delegate be requested to lay the above facts before Congress, with a view to the modification of the existing navigation laws to the extent that passenger travel between this port and the Pacific coast ports of the United States be not restricted to American vessels.

Present conditions, so far as passenger travel is concerned, show clearly and positively that no consideration is given by the several ocean transportation companies, either from the standpoint of probable expansion of their business here or from any appreciation of the needs or requirements of the people of this Territory; on the contrary, there is every indication of a mutual understanding between these companies to maintain the highest rates the traffic will bear. Unfortunately for this community, the United States shipping laws serve only to support and foster this, and in the absence of competition our people are, so far, helpless. With the exception of one local boat, all steamers call-

ing at this port are through boats, having their terminus either at oriental points or in the Australian colonies, and as a consequence the trade they may or may not pick up at Honolulu is a matter of more or less indifference to them, or apparently so, as they appear to be united in maintaining fares between Honolulu and San Francisco for a round trip ranging between 12 per cent and 50 per cent higher than between other ports in the Pacific. The following statement, compiled from the published schedule of the Oceanic Steamship Company, will substantiate this:

A round-trip ticket between San Francisco and Honolulu costs \$135. Distance traveled, 4,200 miles; rate per mile, 3.21 cents. Taking this rate as a basis, the following result is shown:

	Rate.	Distance.	Per mile.	Per cent.	Days on trip.	Rate per day.
		<i>Miles.</i>	<i>Cents.</i>			
San Francisco and Honolulu and return.	\$135.00	4,200	3.21	0	12	\$11.25
Tahiti.....	150.00	7,316	2.18	47	22	7.00
Samoa.....	225.00	8,740	2.57	25	26	8.70
Fiji.....	285.00	9,970	2.85	12	30	9.50
Auckland.....	300.00	11,860	2.53	27	36	8.33
Sydney.....	300.00	14,200	2.10	53	42	7.15

While no doubt the explanation will be made that there is a subsidy paid for mails carried between some of the above ports, it does not appear reasonable that it should cost our traveling public 53 per cent more to go to San Francisco and return than it does passengers from Sydney in proportion to the service rendered. If the same relative rates were charged to Honolulu as are now asked to Tahiti, which would mean about \$90 for the round trip, the increased travel to Hawaii would soon prove more profitable.

Inquiry into the subsidies paid by the United States Government for the carriage of mails by American steamers on trans-Pacific runs shows that the total amount of mail subsidies paid by the United States Government for this service in 1903 was \$431,251.26. These payments are made to the different transportation companies concerned when running to foreign ports, such as oriental points or to the Australian colonies, on the basis of \$4 per mile traveled on the outward trip for steamers of the first class and \$2 per mile traveled on the outward trip for steamers of the second class. The second class is limited to steamers of not less than 5,000 tons gross measurement. The oceanic steamers running to the colonies are rated as being 6,200 tons, and would, therefore, come under the second class. The distance to Sydney from San Francisco is 7,210 miles. At \$2 per trip per mile this would be a subsidy amounting to \$14,420 per trip, and seventeen trips made by these steamers per annum gives a total subsidy paid to them by the United States Government for mail service; and also, in consideration of their being subject to requisition by the Government in time of war and being, therefore, constructed under certain prescribed rules, would amount to \$245,140 for the services performed by the steamers *Sierra*, *Sonoma*, and *Ventura*. In addition to this the steamship *Alameda* is paid \$15,000 per annum as a special contract, and there is a further subsidy of \$7,000 per annum for the run from Samoa to San Francisco as a direct subsidy. This makes a total amount paid to the Oceanic Steamship Company of \$267,140 under United States laws and including

additional contracts for domestic service. These statements are compiled from postal reports and are believed to be correct.

Between Hilo and San Francisco a steamship line has been established, with one steamer running direct between the two ports and making the round trip in about four weeks. This has proved a great convenience to both passengers and shippers on the island of Hawaii, and the service is stimulating a large export demand in bananas, which settlers there are now producing in considerable quantities since the opportunity has been offered them of shipping direct to market.

APPENDIX.

COMMUNICATIONS FROM PUBLIC ORGANIZATIONS IN HAWAII RECOMMENDING APPROPRIATIONS.

A.

Letter from the Honolulu Chamber of Commerce.

HONOLULU, HAWAII, August 12, 1904.

SIR: The Chamber of Commerce of Honolulu, through its committee on legislation and public improvements, solicits your assistance in the following matter:

We deem it a matter of national importance that the port of Honolulu be, and continue to be, a "clean" port. It is not too soon to prepare for the opening of the Panama Canal. The tropical diseases rampant at the Isthmus are unknown here as yet. Our experience with oriental epidemics convinces us that our equable climatic conditions afford a ready culture for any new disease which commerce may bring to our shores.

That, against the opening of the canal, Honolulu be made disease proof is a national matter. It will cost less in money and human life to have such work as may be necessary done before the port becomes inoculated.

Our petition is that the President by Executive order provide for a Honolulu sanitary commission to look over the problem on the ground and report a project thereon. We believe this may be done without expense, or rather without a special appropriation by Congress, by having the Surgeon-General of the Public Health and Marine-Hospital Service and the War Department each detach an officer to serve on this commission, one a trained physician and the other a sanitary engineer.

With this report made by authority, the necessity of Federal assistance in carrying out its recommendations may be urged on Congress later with some hope of success.

If you can indorse this prayer of ours in your letter of transmittal, we ask you to do so.

Respectfully, yours,

THE CHAMBER OF COMMERCE OF HONOLULU,
By JAMES A. KENNEDY,
F. J. LOWREY,
Committee on Legislation and Public Improvement.

Hon. G. R. CARTER,
Governor of Hawaii, Honolulu.

B.

Letter from the Honolulu Chamber of Commerce.

HONOLULU, HAWAII, August 12, 1904.

SIR: Allow us to append to our letter of even date the following statement of matters which we desire to bring to your attention, but which we think can be accomplished without asking direct appropriations from Congress:

1. The first of these concerns the surveys for the necessary dredging work in Honolulu and Pearl Harbor. We believe that strong representations from you to the Secretary of War will result in having suitable reports immediately prepared.

2. Until such time as the Island of Oahu shall be adequately provided with fortifications we urge upon you the necessity for having stationed here continuously some coast-defense vessel of the Navy. It is our hope that a request from the governor to the Secretary of the Navy may result in the stationing of some such vessel in our waters.

3. For our fellow-citizens now segregated as lepers in the settlement of Molokai we ask that a surgeon of the United States Marine-Hospital Corps may be stationed at Kalaupapa for the purpose of scientifically studying the disease of leprosy in the hope of ultimately finding a cure.

4. It is not too soon to prepare Honolulu for the opening of the Panama Canal. The tropical diseases rampant at the Isthmus are unknown in Hawaii, and our experience with oriental diseases is that they find a ready culture under our equable climatic conditions. We believe that extensive public works may have to be constructed before Honolulu can be considered disease proof; that to have Honolulu a clean port concerns the entire Pacific coast of the United States, and that being a national matter, the Territory should have assistance by the Federal Government. In order that this problem may be approached satisfactorily we ask you to represent the situation to the President with the request that he direct the Surgeon-General of the Marine-Hospital Service to detach a surgeon, and the Secretary of War to direct that an engineer of the United States Army be ordered to act with this surgeon, the two of them to compose a commission to study the problem on the ground and to report not only the necessity for the work, but plans and specifications for it. We transmit herewith a letter for this purpose.

5. We understand that there are two irrigation surveys now authorized by law, one being under the Department of Agriculture and the other under the Geological Survey, and that this work may be extended over Hawaii. Much of the wealth of these islands is due to irrigation, and the possibilities of further agricultural development depend, in large measure, on the extension of irrigation. We ask you, therefore, to use your influence with the authorities in Washington to see if one or both of these surveys can not be extended to Hawaii.

6. We ask you also to use your best efforts to secure the making of a soil survey of these islands by the Department of Agriculture. It is our understanding that this work can be done under existing laws if the Secretary of Agriculture sees fit to authorize it.

While we are on this subject of federal expenditures in the Territory we desire to call again to the attention of the Federal Government the desirability of perfecting the plans already made for an army post on

the highlands of Waianae-uka, on the Island of Oahu, which land has already been set apart as a military reservation. It is submitted that if a halfway station between San Francisco and Manila be maintained there for the acclimatization of our troops to the Tropics they would be ready for more efficient service upon reaching the Philippines.

This tract of land lies directly back of Pearl Harbor, and has an elevation of about 800 feet. An abundance of pure water, good drainage, trade winds, cool nights, ample room for rifle and cannon practice and for maneuvers leave little more to be desired for the above purpose.

In these various matters we stand ready to lend you all the assistance in our power.

All of which is respectfully submitted.

THE CHAMBER OF COMMERCE OF HONOLULU,
By JAMES A. KENNEDY,
F. J. LOWREY,
Committee on Legislation and Public Improvement.

Hon. G. R. CARTER,
Governor of Hawaii, Honolulu.

C.

Letter from the Merchants' Association of Honolulu.

HONOLULU, HAWAII, August 19, 1904.

SIR: The Merchants' Association of Honolulu, in reply to the letters received from Acting Governor A. L. C. Atkinson under dates of July 5 and 28, beg to state:

The wholesale and retail business in its various branches has faced a serious depression in trade during the past two years.

There are several causes to which we can look upon as having brought about the present discouraging state of the mercantile community, among which we would call special attention to—

(1) The loss of customs revenue amounting to about \$5,000,000 during the past four years since annexation;

(2) The forced Territorial expenditure for dredging Honolulu Harbor and upon light-houses and their maintenance;

(3) The inconsistent showing made by a comparison of receipts and returns by the Federal Government as put forth in the following data:

The United States Government collects annually per capita from Hawaii \$8.52.

The United States Government returns directly per capita annually to Hawaii \$1.62.

The United States Government expends annually per capita for its mainland population \$7.97.

(4) Decrease in population, especially among our most valuable workers, the Portuguese, a large number of the latter having been compelled to seek work in other countries on account of the Territorial government being unable to continue necessary work on public buildings, roads, and bridges, owing to shortage of funds.

To bring business back to its former flourishing condition, and in view of the large amount of profit gained by the Federal Treasury directly from Hawaii, we would urge strong representations be made

to Congress with a view of having a fair proportion of the Federal receipts from Hawaii expended for necessary improvements in this Territory.

We submit our most urgent necessities and reasonable requests to be—

(1) Continued dredging and enlargement of Honolulu Harbor to the end of our being able to dock with safety the largest merchant or naval vessels;

(2) A large Federal building which will accommodate the departments of customs, post-office, justice, and administration, and thus do away with the great inconvenience both to the Federal officers and the public by reason of the present scattered locations of the different departments;

(3) Naval station at Pearl Harbor, the opening of which would bring these waters into practical use and make possible the direct shipment of about 100,000 tons of produce per annum.

(4) *Fortifications and army post.*—It is our understanding that these two items are already assured, but we would suggest that efforts be made which will result in the early commencement of this work.

(5) Breakwater at Hilo, *the only possible harbor on the island of Hawaii.*

The work necessitated by the above-suggested improvements would bring to our midst a most desirable class of mechanics, artisans, and laborers, on whom the mercantile interests depend for the life of trade.

(6) *Transport and naval supplies.*—We particularly request that your influence be exerted on the Navy and War Departments in order that Honolulu merchants be given an opportunity to furnish supplies for the transports and war vessels instead of the departments shipping goods to Honolulu to meet vessels expected to arrive here, notwithstanding the fact that our local keen competition would in most cases result in a saving to the Department.

(7) We would respectfully suggest that the Territorial government make up an account against the Federal Government for each and every item expended for light-houses and buoys from June 14, 1900, to the date upon which this service was taken over by the Federal Government, attach vouchers thereto, and have their correctness certified to by the proper local Federal officer, and the same be forwarded to the Department at Washington. This amount will be found to be \$43,421.76. We would further recommend that the same action be taken with the Territorial expenditure on dredging Honolulu Harbor only from June 14, 1900, to the date of last expenditure, which items will be found to approximate \$132,000, or the aggregate of both dredging the harbor and light-houses and buoys approximately \$175,420.

We consider the granting of the above-enumerated requests as absolutely necessary to restore and put into circulation at least a part of the large revenue received by the Federal Government from this Territory. Such a condition as now exists can not last long without more serious depression than we are now suffering.

Thanking you for the opportunity of making these representations, we beg to remain,

Very respectfully,

GEO. W. SMITH,
President Merchants' Association.

Hon. GEO. R. CARTER,
Governor Territory of Hawaii.

D.

Letter from the Hilo Board of Trade.

HILO, HAWAII, August 4, 1904.

SIR: In compliance with your request under date July 28, 1904, we beg to make the following suggestions:

(1) That Congress acquire that land belonging to the Territory of Hawaii, situate in Hilo and bounded on the north by the Wailuku River, south by Waianuenue street, east by Bridge street, and on the west by Pitman street, and erect thereon a suitable building including vaults for the use and occupation of the United States post-office, United States land office, United States courts, United States custom-house, surveyor of the port, United States internal-revenue office, and other Federal offices. That Congress appropriate the sum of \$150,000 for defraying cost of said building.

(2) That Congress appropriate the sum of \$100,000 to enable the Secretary of War to make a survey and estimate for the construction of a breakwater from the ocean along Blond Reef to Cocoanut Island.

(3) That an amount of \$10,000 be appropriated for the establishing of a United States marine-hospital service in connection with the Hilo hospital.

(4) That an amount of \$10,000 be appropriated for the erection of a light-house at Leleiwi Point.

There are many and various reasons why we should have the above mentioned appropriations, a few of which we mention briefly as follows:

The Island of Hawaii is the largest and richest of the whole group. It has a greater area than all the other islands put together. It has an area of 4,200 square miles as against the combined area of all the other islands of 2,530 square miles. It has a population of 46,843 or 34 per cent. of the whole group. During the year 1903 it produced 170,665 tons sugar as against 437,991 tons for the whole group; approximately 39 per cent of the whole.

The value of real and personal property as taken from the tax assessor's books is \$27,559,038, an increase of \$1,793,369 over that of the year 1902.

Money-order business at the Hilo post-office in 1901:

Orders issued	8,570
Amounting to	\$288,116.13
Orders paid out	2,420
Amounting to	\$45,114.65

For the first eleven months of 1902:

Orders issued	9,862
Amounting to	\$292,511.25
Orders paid out	2,648
Amounting to	\$48,523.40

Showing an increase for the past eleven months over the previous year of 1,520 orders handled, amounting to \$7,804.07.

We have been unable to obtain any figures from the postmaster on this subject at the present time.

The present wooden barn used for a post-office is not only inadequate but is unsafe; so much so that when any large amount of cash is on hand the postmaster feels it necessary to keep a man on the premises all night.

Our collector of the port has no place to transact his business other than in his private office.

Our Federal judge is allowed only by the courtesy of the circuit judge to hold his court in the circuit-court room, there being no other place available.

The internal revenue officers transact their business in their bedrooms at the hotels; the surveyor of the port has his office in a small shed.

The United States commissioner and other Federal officers are compelled to transact their business in private offices.

The land suggested herein for a Federal building site is owned by the Territorial government and is under lease to various tenants whose terms expire within twelve months from date. For this the government would not be put to any expense. The site is admirably adapted for the purpose.

Hilo is the largest town on this island and is second in importance to Honolulu, and nearly the whole of the products of this island pass through Hilo to the market.

Assessed value of real estate and personal property.

For the district of Hilo in 1897 amounted to.....	\$5, 460, 631
For the district of Hilo in 1903 amounted to.....	11, 210, 321

Showing an increase in six years of.....	5, 749, 690
--	-------------

On the entire Island of Hawaii the assessed value of real and personal property in 1897 was.....	13, 504, 831
The assessed value of real and personal property in 1903 was.....	27, 559, 038

Showing an increase for six years of.....	14, 054, 207
---	--------------

Total number of vessels entered during—	
1897.....	37
1903.....	74

Total value of exports for the year ending June 30, 1904.....	\$3, 993, 871
Total value of imports for the same period was.....	1, 452, 535

The harbor at Hilo is practically an open roadstead with ample depth of water for vessels of the largest draft. Vessels lying at anchor in the harbor are liable at any moment to be caught in a northeast gale, and are in consequence in great danger of being cast on the reef or ashore, as there is no protection. Vessels are sometimes unable to discharge any of their cargo for ten to twelve days at a time during a northeast swell. The bay is the most commodious natural harbor in the Hawaiian Islands, it having an area of over 1,500 acres, and an available wharfage frontage of 1½ miles. The entrance to this harbor is 1 mile wide, with a depth of water from 8 to 9 fathoms (as a reference to the chart will show), thus enabling vessels to enter with perfect safety either night or day.

The Hilo Railroad Company has constructed a wharf 100 feet by 800 feet long, at a cost of \$100,000. Deep-sea vessels do not use this except in the calmest weather, on account of the heavy swell and undertow, and as a consequence nearly every ton of freight is either loaded or discharged by means of lighters or scows between ship and shore. This can be obviated only by a breakwater.

We understand that a site for a quarantine station in Hilo has been selected by Doctor Cofer, the Federal quarantine officer, and that a

complete equipment, valued at \$10,000, is now in Honolulu awaiting the authorization for a proper building. The importance of immediate action in this matter is obvious.

A second-class light is needed at East Point. All vessels coming from the mainland come in from the direction of that point.

In view of the foregoing, therefore, we earnestly recommend the favorable consideration by Congress in connection with the suggestions enumerated.

Respectfully submitted.

THE HILO BOARD OF TRADE,
By E. N. HOLMES, *President*.
By A. VICARS, *Secretary*.

A. L. C. ATKINSON, ESQ.,
Acting Governor Territory of Hawaii, Honolulu.

E.

Letter from the Wailuku Improvement Association.

WAILUKU, MAUI, August 13, 1904.

SIR: In reply to your wireless communication of July 28, 1904, to Mr. A. N. Kupoikai, which reads as follows: "What recommendations from Wailuku Improvement Association for Federal improvements for Maui," the undersigned, a committee duly appointed for that purpose in open session of the Improvement Association of Wailuku District, do hereby most respectfully make the following recommendations:

First. A Federal building to be erected in Wailuku on a suitable site hereafter to be selected, the same to be large and commodious enough to provide quarters for the following branches of the United States Government: Post-office, chambers and court room for United States district attorney, clerk of the Federal court, United States marshal, internal-revenue officers, United States commissioner, and such other branches of the Federal Government as the Department may see fit to provide.

For the erection of a building suitable for the above purposes we would recommend the expenditure of \$75,000.

Second. We would further recommend a complete and minute geodetic survey of the islands of Maui, Molokai, Lanai, and Kahoolawe, and the proper charting thereof.

Third. We would further recommend the erection of proper and suitable lights at the following points, to wit: Molokai Point, Kamalo, Honokohau, Kahului, Huelo, Nahiku, Hana, Kipaulu, Makena, Maalaea Bay, Lahaina, Kaanapali, Maunalei, Lanai, Molokini, north of Kahoolawe, and south of Kahoolawe. Regarding Lahaina light we would recommend that the same be reconstructed in such a manner as to be infallibly distinguished from all other lights in that vicinity.

Fourth. We would recommend the construction of a breakwater at Kahului to extend from the shore to a point now commonly known as the American Girl Rock, or a distance of 2,600 feet. The construction of such a breakwater would afford perfectly safe anchorage for numerous vessels, and will besides make possible the construction of

permanent and commodious wharves, an undertaking which has so far been rendered impossible by the absence of a breakwater. Exhaustive surveys have been made at the instance of the Kahului Railroad Company, which prove beyond a doubt that the construction of a breakwater is not alone highly feasible, but that the same can be undertaken and carried on to a successful finish for a sum not exceeding \$250,000. We would therefore recommend the appropriation of the above-named amount for a breakwater at Kahului.

In support of the above recommendation we would respectfully set forth the fact that the value of the exports and imports of Kahului alone amounts to some \$6,000,000 per annum. In addition the value of ships, owing partly to their large tonnage, and to the fact that at the time of their arrival they already contain large and valuable cargoes, must be from three to four times the value of the Kahului business.

Respectfully submitted.

R. W. FILLER, *Chairman.*

C. D. LUFKIN.

W. F. CROCKETT.

HUGH M. COKE.

W. G. SCOTT.

A. N. KEPOIKAI.

Hon. A. L. C. ATKINSON,

Acting Governor, Honolulu, Hawaii.

TERRITORIAL REGISTER AND DIRECTORY FOR 1904.

TERRITORIAL OFFICIALS.

GEORGE R. CARTER, Governor.
A. L. C. ATKINSON, Secretary.
LORRIN ANDREWS, Attorney-General.
C. J. CAMPBELL, Treasurer.
C. S. HOLLOWAY, Superintendent Public Works.

A. T. ATKINSON, Superintendent Public Instruction.
J. H. FISHER, Auditor.
F. D. CREEDON, Private Secretary to Governor.

JONAH K. KALANIANA'OLE, Delegate to Congress.

DEPARTMENT OF JUDICIARY.

SUPREME COURT.

Hon. W. F. FREAR, Chief Justice.
Hon. A. S. HARTWELL, Associate Justice.
Hon. F. M. HATCH, Associate Justice.
HENRY SMITH, Clerk Judiciary Department.
Hon. J. T. DE BOLT, First Judge, First Circuit, Oahu.
Hon. GEORGE D. GEAR, Second Judge, First Circuit, Oahu.

Hon. W. J. ROBINSON, Third Judge, First Circuit, Oahu.
Hon. A. N. KEPOIKAI, Second Circuit, Maui.
Hon. J. A. MATTHEWMAN, Third Circuit, Hawaii.
Hon. C. F. PARSONS, Fourth Circuit, Hawaii.
Hon. W. J. HARDY, Fifth Circuit, Kauai.

FEDERAL OFFICIALS.

DEPARTMENT OF JUSTICE.

UNITED STATES DISTRICT COURT.

Hon. SANFORD B. DOLE, Presiding Judge.
R. W. BRECKONS, United States Attorney.
J. J. DUNNE, Assistant United States Attorney.
E. R. HENDRY, United States Marshal.
F. L. WINTER, Office Deputy United States Marshal.

FRANK L. HATCH, Miss F. M. HANDY, Deputy Clerks.
A. F. JUDD, United States Commissioner.

TREASURY DEPARTMENT.

CUSTOMS DIVISION.

E. R. STACKABLE, Collector.
R. C. STACKABLE, Special Deputy Collector.
RAYMER SHARP, Chief Examiner.
E. A. JACOBSON, Deputy Collector.
B. GRIGGS HOLT, United States Shipping Commissioner.

JOHN B. DIAS, Deputy United States Shipping Commissioner.
J. C. RIDGWAY, Deputy Collector, Hilo.
E. H. BAILEY, Deputy Collector, Kahului.
E. A. FRASER, Deputy Collector, Mahukona.
W. D. MCBRYDE, Deputy Collector, Koloa.

IMMIGRATION SERVICE.

F. M. BECHTEL, Inspector in Charge.

R. C. BROWN, G. R. CULLEN, and R. L. HALSEY.

Chinese Bureau.

JOSHUA K. BROWN, Chinese Inspector in Charge.

INTERNAL-REVENUE SERVICE.

R. H. CHAMBERLAIN, Collector Internal Revenue.
H. D. COUZENS, Chief Deputy Collector.

W. F. DRAKE, Division Deputy.
A. M. WEBSTER, Deputy and Gauger.

COAST SURVEY DIVISION.

W. D. ALEXANDER, Assistant in United States Coast and Geodetic Survey, in charge of Branch Office.

S. A. DEEL, Aid in United States Coast and Geodetic Survey, in charge of Magnetic Observatory near Sisal Station, Ewa.

DEPARTMENT OF AGRICULTURE.

HAWAII EXPERIMENTAL STATION.

JAREB G. SMITH, Expert and Special Agent in Charge.
F. E. CONTER, Expert and Special Agent.

D. L. VAN DINE, Expert and Special Agent.

POST-OFFICE DEPARTMENT.

LORIN H. BRACKET, Inspector in Charge.
 GEORGE W. CARR, Assistant Superintendent
 Railway-Mail Service.
 JOSEPH M. OAT, Postmaster,
 L. T. KENAKE, Cashier and Assistant Postmaster.

JOHN T. STAYTON, Assistant Cashier.
 GEORGE L. DESHA, Chief Registry Clerk.
 F. E. COLBY, Chief Money-Order Clerk.
 W. C. KENAKE, Chief Mailing Clerk.
 E. M. BROWN, Chief Distributor.

WAR DEPARTMENT.

UNITED STATES NAVAL STATION, HAWAII.

Capt. HENRY W. LYON, U. S. Navy, Commandant.
 Lieut. Commander A. P. NIBLACK, Captain of Yard.
 U. S. G. WHITE, U. S. Navy, Civil Engineer.

W. E. TAYLOR (retired), Surgeon, Medical In-
 spector.

UNITED STATES ARMY DIVISION.

Lieut. Col. JOHN MCCLELLAN, Artillery Corps,
 Commanding Camp McKinley.

Capt. C. F. HUMPHREY, Jr., Quartermaster U. S.
 Army.

PUBLIC HEALTH AND MARINE-HOSPITAL SERVICE.

L. E. COFER, P. A. Surg., U. S. M. H. S., In Com-
 mand.
 M. J. WHITE, P. A. Surg., U. S. M. H. S.
 W. C. HOBODY, P. A. Surg., U. S. M. H. S.
 R. L. WILSON, Asst. Surg., U. S. M. H. S.
 A. N. SINCLAIR, Acting Asst. Surg., U. S. M. H. S.
 WILLIAM T. JAMES, Acting Asst. Surg., U. S. M.
 H. S.
 FRANK L. GIBSON, Pharmacist, U. S. M. H. S.
 JOHN G. GRACE, Acting Asst. Surg., U. S. M. H. S.,
 Hilo, Hawaii.

JOHN WEDDICK, Acting Asst. Surg., U. S. M. H. S.,
 Kahului, Maui.
 R. H. DINEGAR, Acting Asst. Surg., U. S. M. H. S.,
 Kihel, Maui.
 R. L. PETERS, Acting Asst. Surg., Lahaina, Maui.
 E. S. GOODHUE, Acting Asst. Surg., U. S. M. H. S.,
 Koloa, Kauai.
 B. D. BOND, Acting Asst. Surg., U. S. M. H. S.,
 Mahukona, Hawaii.

O

Oversized Foldout

39-48

REPORT

OF THE

GOVERNOR OF THE TERRITORY OF
HAWAII

TO THE

SECRETARY OF THE INTERIOR.

1905.



WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1905.

REPORT

OF THE

GOVERNOR OF THE TERRITORY OF HAWAII

TO THE

SECRETARY OF THE INTERIOR.

1905.

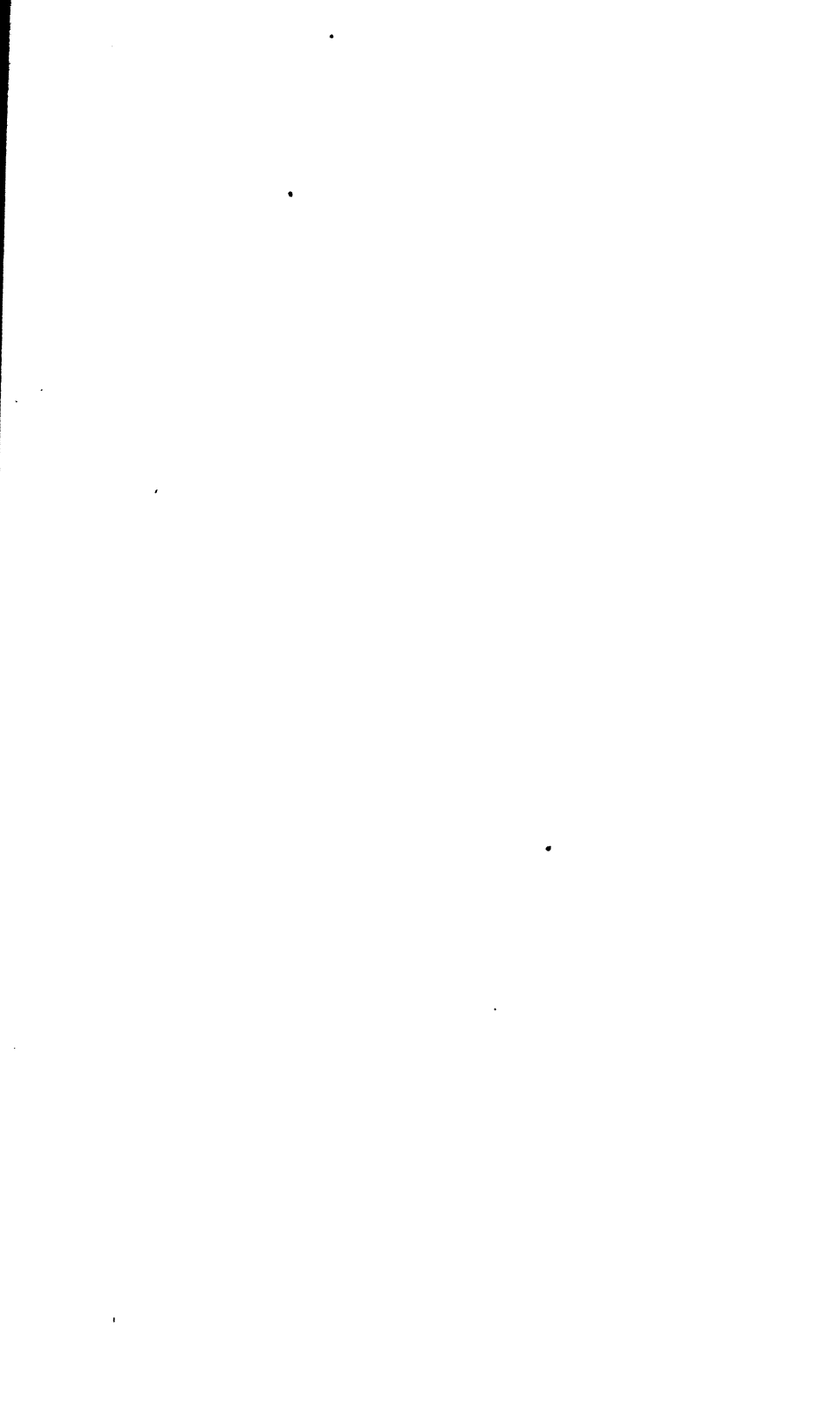


WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1905.



CONTENTS.

	Page.
Economic conditions	5
Physical conditions	5
County government	6
Changes in the organic act	6
Naturalization (recommendations)	7
Fisheries cases	8
Criminal trials	10
Extradition	11
Proclamation	11
Fire claims	14
Chinese fund	15
Finances	15
Territorial bonds (recommendations)	16
Health	17
Education	17
Archives	17
Quarantine wharf	19
Hawaiians are not uitlanders	20
Future	20
Needed legislation	20
Needed appropriations	22
Health department	22
Educational department	26
Educational problems	32
Finance department	34
Public works department	37
Disposition of loans	41
Honolulu water supply	44
Public lands and their administration	46
Judiciary	58
Police	61
Forestry	62
Entomology	64
Commerce and navigation	66
Postal affairs	69
Federal law work	74
Light-houses	75
Immigration	76
Public Health and Marine-Hospital Service	78
Climate and crop service	79
Banana	81
Vanilla	82
Rubber	83
Tanning	84
Honolulu works	85
Rapid-transit service	86
Chamber of Commerce, Honolulu	88
Merchants' Association, Honolulu	89
Territorial register and directory for 1905	90



REPORT OF THE GOVERNOR OF THE TERRITORY OF HAWAII.

EXECUTIVE CHAMBER,
Honolulu, Hawaii, October 5, 1905.

SIR: I have the honor to submit herewith my annual report on Hawaiian affairs for 1905.

ECONOMIC CONDITIONS.

During the year important changes have occurred, some of which may mean that the year will stand out as a turning point in the progress of the Territory. It, however, can not be said to have been a year of great prosperity, but rather of recuperation. From the volume and value of exports, which are shown later in this report, it would appear to have been, under ordinary circumstances, a fairly prosperous year, yet the previous low price of sugar had, under existing conditions, brought losses to many of the sugar estates, burdening them with obligations, and the returns this year have been applied to the liquidation of foreign credits. Thus conditions have not responded in proportion to that which the figures would indicate.

PHYSICAL CONDITIONS.

Though the Territory of Hawaii is small, yet it contains natural phenomena and physical aspects that make it wonderful. Hawaii is nature's jewel box. Probably in no similar area in the world are there such contrasts of nature or such wide extremes to be found in close proximity. Snow-clad mountains within a day's ride from a warm seashore with its snow-white coral sand beach which arrests the sparkling waves of tropical seas. A volcano—nature's wonderful laboratory—which has been for centuries constantly at work manufacturing raw material, the disintegration of which supplies our rich and fertile soil. A land where the pine tree is found beside the palm. Broad fields, rugged mountains, high cliffs surrounded by a sea the colors of which, with those of the skies and landscape, are so vivid and brilliant that when accurately reproduced are incredulously received. Even the fish in the seas around the islands are found in all colors, shapes, and varieties. Here, too, at the meeting point between the Occident and the Orient, are found in our population representatives of the different tribes or races of mankind. It is no unusual sight to behold in our streets a nurse, with a cap and apron, trundling a wicker, rubber-tired baby carriage, with its fair-haired,

blue-eyed occupant, while near by is a Japanese woman in her kimono and obi and wearing wooden clogs, with her doll-like baby on her back. And one may watch the Chinaman with his water buffalo plowing a rice field, lolling comfortably in the latest model of an automobile.

Nature has been so lavish with her gifts that almost every species of domestic animal has found subsistence easy and run wild. In the forests on the upper slopes of Mauna Loa are still to be seen wild cattle, the descendants of those left by Vancouver at the beginning of the last century. The wild birds of our forests still to be found show contrasts in evolution that are marvelous. In Hawaii the wide and varied processes of nature are confined to a small area, thus more readily observed and the field more remarkable for study or research in any avenue of human interest.

COUNTY GOVERNMENT.

The greatest change of the year has come about through the passing by the last legislature of a county act, by which there has been a subdivision of the various functions of government through the establishment of the county system. No community had ever faced such a problem, which was the exact reversal of the ordinary experience in such matters. Here an old, established, and complete form of government, without municipalities or counties, had been changed into a Territory, the duties of whose officers were defined, and which was possessed of all kinds of property and had created a debt, much of which has been used in the upbuilding of those departments which ordinarily fall to the township or county.

There being grave question as to the validity of the act, as well as some of its provisions, the attorney-general prepared an agreed statement of the facts, on which a test case was brought, and certain private citizens retained counsel to assist in securing an adjudication of the questions. The act was held constitutional in all its main features, and much of the uncertainty in regard thereto was removed. By the act the Territory is divided into five counties. The powers granted were not so wide or complete as those which usually exist on the mainland. The measure in a way was experimental, and did not carry with it the power of taxation, so that for the present the situation is unique in that work undertaken by the counties is met by allotment of what has heretofore been Territorial income. It was the desire of the legislature to at the same time as nearly as possible relieve the Territory of proportionate expenditures. While the act has been sustained, it will be permanent only in proportion as it suits the wishes of the people.

CHANGES IN THE ORGANIC ACT.

Among the notable incidents of the year affecting the Territory of Hawaii was the amendment, approved March 3, 1905, amending sections 56, 80, and 86 of the organic act. This amendment was introduced primarily to do away with ambiguities in connection with the establishment of a county form of government in the Territory. Section 56 provided that county officials could be either appointed

or elected, and section 80 adjusted the appointing power to conform thereto. All previous attempts arising in Hawaii itself to secure amendments or alterations of the organic act had met with failure, and the people of the Territory had settled down to accept it much in the same manner as the Constitution of the United States is accepted by all, when suddenly, without any public expression of a desire on the part of the people of the Territory for any other change, an additional section was added to the bill, providing for the amendment of section 86, which ceases to recognize our system of courts as distinct and separate from other Territories, and provided in effect that writs of error and appeals may be taken from the Territorial supreme court to the United States Supreme Court in all cases where the amount involved, exclusive of costs, exceeds \$5,000.

The first intimation of the action taken by Congress was received by cable, and stated that this amendment, which fundamentally affected our system of courts, had already been passed. The amendment, while of little moment in itself, has created in the minds of some a feeling of anxiety and distrust—a feeling of uncertainty as to what is to be expected next. Had any knowledge of such proposed action reached here a determined effort would undoubtedly have been inaugurated to checkmate it, as it is believed that because of Hawaii's isolation the cost of an appeal to Washington is so great that it gives an undue advantage to the wealthy litigant as against those who can ill afford the expense. Evidently those urging the adoption of the measure were unwilling to come out in the open. It would appear to be unfortunate if our system of government is such that amendments not germane to the original act can be introduced in joint committee at the eleventh hour and rushed through Congress.

NATURALIZATION.

By a reference to the article on the judiciary department by Chief Justice Frear it will be noted that some question has been raised as to the jurisdiction of our Territorial circuit courts in naturalization matters. The "organic act" of Hawaii, by striking out all laws relating to Hawaiian naturalization, repealed all power in the various courts of Hawaii to naturalize aliens, power to naturalize being only such as is given by express statute and not inherent in any court, and thus left the question of naturalization to the United States Revised Statutes, section 2165 of which provided that an alien may be admitted to become a citizen of the United States by qualifying as therein provided before a circuit or district court of the United States or a district or supreme court of the Territories, or a court of record having a clerk and seal in any State.

Congress, in creating the Territory of Hawaii, recognized her isolated geographical position and provided a system of courts more nearly akin to that of the various States. A single district court of the United States was provided with the jurisdiction of both a district and circuit court of the United States, and with the right of appeal to the United States circuit court of appeals. No provision was made for the lower ordinary district courts of the United States as exists in the various Territories. On the other hand, "circuit courts" were provided for each of the main islands, clothed with the

same power and jurisdiction as the ordinary trial courts of the various States and corresponding in jurisdiction with the "district" courts in the Territories as they existed at the time of the adoption of section 2165, before referred to.

Appeal from our Territorial circuit court lies to the supreme court of the Territory, as did appeal from Territorial district courts to Territorial supreme courts. But owing to these changes and the different designations the question has arisen as to whether the circuit courts of the Territory are district courts within the meaning of the Federal statute. It was originally held by our various circuit judges that the circuit courts of Hawaii, having practically the jurisdiction of district courts in other Territories, the intent of the statute clearly designated them to take the place of district courts and naturalize aliens. This proved a great convenience to the people of the Territory, as both the supreme court of the Territory and the United States district court are located in Honolulu, a long distance for persons residing on the other islands to travel, and some 1,000 or more aliens, English, German, Portuguese, and other nationalities, have from time to time become naturalized by the circuit courts.

Matters proceeded in this manner unquestioned until, upon the appointment of several of the new circuit court judges within the last two years, questions were raised by them, not only as to their power to naturalize aliens, but as to whether aliens who had been naturalized by the circuit courts were citizens of the United States, capable of serving on juries or exercising the voting franchise. In some of the circuit courts of the Territory rulings like these have almost prevented jury trials, as it so reduced the number of residents capable of serving as jurors. It has caused the dismissal of a number of indictments, it being held that such indictments were improperly brought, owing to the presence on the grand jury of members who had been thus naturalized. Questions concerning voting and elections are also involved.

The issue is shortly to be brought before the supreme court of the Territory, and if it should be held that the circuit courts are not entitled to naturalize aliens a large number of people who have already been naturalized by them, and who are not only scattered throughout the islands, but many of whom have gone to the mainland, would be without naturalization, all of whom applied for and were naturalized in good faith, and thus an exceedingly chaotic, unfortunate condition would follow. Congress has the power to remedy this by an amendment to our "organic act," allowing aliens to be naturalized by any court of record having common law jurisdiction, a clerk, and a seal, upon such aliens complying with the conditions and provisions of the United States statutes. And it would be well to insert a further clause, that any person who had been naturalized by our circuit courts in such manner since the adoption of the "organic act" should not for that reason be disqualified as a citizen of the United States.

FISHERIES CASES.

The extended and expensive litigation over the ancient and peculiar fishing rights was caused by sections 95 and 96 of the so-called "organic act," approved April 30, 1900, by which Congress endeavor-

ored to do away with those methods regarding fisheries which existed from time immemorial among the natives, and which had become the law of the land in the Kingdom of Hawaii, legalized by its legislatures and recognized by the courts for over half a century, and in this manner make the sea waters free to all citizens of the United States. Thus all previous laws conferring exclusive fishing rights were repealed.

There evidently was a feeling in the minds of some members of Congress that possibly in some of the old grants vested rights may have accrued to the owners. Thus the law was passed subject to vested rights, but with a remarkable clause abolishing the vested rights in three years if not established in the courts of the Territory. This second section referred to provides a method of establishing claims in the courts of the Territory, allows service on the attorney-general, and directs that officer to conduct all such cases. If such fishing rights are established, the Territory is directed to proceed to condemn and to pay out of its revenues the lawful ascertained value. These rights have heretofore covered a considerable section of the coast lines and a large acreage of flats and shallow waters, as well as certain bays or inlets. They have varied from exclusive rights for all fish and sea food to only certain species of fish. Some were sanctioned by specific mention in the old royal patents or land grants. Others had been recognized from time immemorial as appertaining to the land.

During the first two years after annexation, claims continued to be presented and filed in the various circuit courts throughout the whole group of islands. Among these, the case of *Damon v. Territory of Hawaii* was selected as typical of that class of cases in which the grant contains specific mention of the fishing rights. In the lower courts judgment was given in favor of the Territory, and the supreme court of Territory decided that as these rights had been granted by legislative enactment they could also be repealed by Congress. Exceptions were taken, however, and the case appealed to the Supreme Court of the United States, where a decision was rendered reversing the previous decisions and practically deciding that in all such cases a vested right had accrued.

The attorney-general, after consultation with the local attorneys employed to prosecute the cases, concluded to examine each case and, as far as practicable, decide just which fell within the decision of the United States Supreme Court. This has been accomplished, and thus a majority of the cases disposed of. There is now on file with the Supreme Court of the United States at Washington the case of the *Bishop Estate v. Territory of Hawaii*, October, 1905, No. 144, involving the question, where the original grant does not contain a specific mention of fishing rights, the question being whether a right appertaining to the land passed by virtue of the grant itself without specific mention of it.

It is hoped that upon a decision of this case all questions of law will be settled. There will remain only the question of facts establishing the claims, then condemnation, thus ascertaining the lawful value of each claim. The whole question is one that has been forced upon the Territory by Congress, for there has never appeared to be any desire on the part of the people of the Territory to change from

the old customs of former times. The Territory is certainly without the means to pay the lawful ascertained value of these claims, and under the organic act it has not the power to create an indebtedness to meet these payments. Therefore, if the present Congress desires to continue the policy of its predecessors, making the sea waters around the Hawaiian Islands free to all, provision should be made under the Department of Justice for a representative of that Department to conduct condemnation proceedings, in order to insure the same being absolutely disinterested to avoid any accusations of inadequate efforts on the part of the Territorial officials or of biased juries. It certainly does not appear to be in accord with sound justice for the Territory to proceed and condemn these fishing rights until such time as there is some possibility of paying for the same.

CRIMINAL TRIALS.

The attorney-general reports that there have been 17 criminal terms of the circuit courts, at which 283 criminal cases have been disposed of, resulting in 234 convictions and 49 acquittals. These cases have included a large number of very important cases for the Territory. This work does not include the additional work of practically continuous attendance before the grand juries of the various circuits, and the presentation of evidence to those bodies, with the consequent necessity of preparing indictments for the above-mentioned cases, together with the disposal of various motions concerning the legality of such indictments, all of which has taxed the various members of that office to a considerable degree. Of the most important cases during the year were those against public officials. During the past year the supreme court has confirmed the convictions of Jonah Kumalae, a member of the house of representatives, and Enoch Johnson, an attorney at law, who were convicted, after a jury trial in the first circuit court, of connection with scandals concerning vouchers of the legislature of 1903.

The supreme court of the Territory of Hawaii has also confirmed the conviction and sentence of E. S. Boyd, formerly commissioner of public lands of the Territory, charged with embezzlement of public funds amounting to \$30,000, and he is now serving his sentence. Two of the many homicide cases tried in the Territory during the past year perhaps deserve passing notice. These are the case of the Territory *v.* E. M. Jones and the case of the Territory *v.* P. H. Naone. Both were accused of the crime of wife murder and both introduced as a defense the plea of insanity. The trial of the first case is remarkable in that it is probably the longest and most expensive criminal trial which has ever taken place in the Territory, beginning on the 16th day of January, 1905, and ending on March 9, comprising forty-three days of actual trial, the last ten of which included not only regular sessions of the court, but also night sessions lasting until 11 o'clock. During this case, including the medical experts, 71 witnesses were examined, 33 on behalf of the prosecution and 38 for the defense. Hypothetical questions of great length were asked by both the prosecution and defense, the longest covering 23 pages of typewritten matter. The trial ended with a verdict of manslaughter in the first degree, after a delibera-

tion of forty-eight hours by the jury. The cost of the trial to the taxpayers was some \$6,300.

The case of P. H. Naone was begun on the 10th day of May, 1905, and lasted until the 2d of June, representing twenty-one actual trial days. This is a departure from our usual run of such matters in the Territory, and if we are to judge by the record of the length and expense of trials for homicide in many of the States of the Union, these two cases show that the Territory is surely progressing in this respect along "American lines."

EXTRADITION.

During the year, under instructions of the governor, the attorney-general's department prepared extradition papers in two cases. First, in the case of Uyeke Kamitaro (alias Uyeke Kamizo), a Japanese, who was indicted for murdering his wife on the island of Hawaii. The papers were duly forwarded to Washington, and Mr. Chester A. Doyle, commissioned by the Secretary of State, as agent, to present the same to the Japanese Government. Unfortunately, the man had been lost track of after arriving in Japan, and it was deemed impossible to effect his arrest by the Japanese Government. This was followed by the case of Henry Kapea, charged with embezzling a large sum of money from the Hawaiian Trust Company, and who had fled to Japan, but since then had proceeded around the world and was finally located in London. Extradition papers were forwarded to Washington, and Mr. Henry Vida was designated by the Federal Government as special agent for the purpose of making the arrest, and Kapea was extradited from London, and is now in Honolulu awaiting trial.

PROCLAMATION CONVEYING LAND TO THE FEDERAL GOVERNMENT.

As will be noted in the article on public health by the president of the board of health, Mr. L. E. Pinkham, during the year an act was passed by Congress to provide for the investigation of leprosy, with special reference to the care and treatment of lepers in Hawaii, and approved on March 3, 1905. It is provided by the terms of this act, when the Territorial government of Hawaii shall cede to the United States in perpetuity a suitable tract of land 1 mile square, more or less, in the leper reservation at Molokai, Hawaii, there shall be established thereon a hospital station and laboratory of the Public Health and Marine-Hospital Service of the United States for the study of the methods of transmission, cause, and treatment of leprosy.

In accordance with the foregoing, at the earnest solicitation of the governor and others, Surg. Gen. Walter Wyman, Chief of the United States Public Health and Marine-Hospital Service, was induced to visit the island for the purpose of making a selection of the site for the erection of the buildings provided for in the act. He arrived in Honolulu the early part of June, and in company with the Hon. W. P. Hepburn, member of Congress from Iowa, Dr. E. C. Cofer, of the Federal quarantine service, and certain Territorial officials, visited the settlement at Molokai as the guests of the Inter-Island Steam Navigation Company, which had put a steamer at the disposal of the

party. After a thorough inspection of the entire area, it was concluded, from the physical and local conditions, that the purposes of the act could best be fulfilled by the selection of various areas of land in different localities for separate purposes. First, the natural slope of high land at the eastern extremity of the settlement adapted itself in every way to a hospital service. Beyond this, protected by a promontory, was a site suitable for a landing. Between the two, and up the ravine, was an unfailing spring of pure water, which it was thought was sufficiently elevated to furnish water to the buildings by gravity.

Accordingly the Territorial surveyors were put to work, and it was found that the available area for hospital buildings included 114 acres, the landing site 8.9 acres, the spring 4.5 acres; but this gave a total of only 127.4 acres, considerably less than 1 mile square, and the Federal officials, although admitting that the areas chosen were in every way superior for executing the purposes of the act, yet expressed doubt as to the final construction of the wording "one mile square, more or less," so that 502.6 acres additional area, running from the seashore nearly to the road from Kalaupapa Landing, back of and including the Kauhako Crater, now used for pasturing stock, was added, completing 1 mile square of land—about one-sixth of the whole reservation. On the 28th of June, in accordance with powers granted in the organic act, the following proclamation was signed, thus complying in every detail with the requirements of the act and relieving the Territory of the responsibility as to its further execution:

A PROCLAMATION.

Whereas, it is provided by section 91 of an act to provide a government for the Territory of Hawaii, passed by the Fifty-sixth Congress of the United States of America on the 27th day of April, A. D. 1900, and approved on the 30th day of April, A. D. 1900, "That the public property ceded and transferred to the United States by the Republic of Hawaii, under the joint resolution of annexation, approved July 7, 1898, shall be and remain in the possession, use and control of the Territory of Hawaii, and shall be maintained, managed, and cared for by it, at its own expense, until otherwise provided for by Congress, or taken for the uses and purposes of the United States by direction of the President or the governor of Hawaii," and

Whereas it was enacted by the Senate and House of Representatives of the United States of America in Congress assembled, by an act thereof duly approved by the President of the United States of America on the 3d day of March, A. D. 1905, "That, when the Territorial government of Hawaii shall cede to the United States in perpetuity a suitable tract of land one mile square, more or less, on the Leper Reservation at Molokai, Hawaii, there shall be established thereon a hospital station and laboratory of the Public Health and Marine Hospital Service of the United States, for the study of the methods of transmission, cause, and treatment of leprosy," and,

Whereas in pursuance of the foregoing act of the Congress of the United States of America a tract of land situated on the leper reservation at Molokai, Hawaii, in area 1 mile square, more or less, has been found suitable for the purpose in said last-named act contemplated and set forth:

Now, therefore, I, George R. Carter, governor of the Territory of Hawaii, by virtue of the authority in me vested by law, do hereby declare and proclaim that the following-described pieces of land, (the Territory reserving the ownership of, and right to remove such buildings as may be on the date hereof upon the granted premises), be and the same are hereby taken for the uses and purposes of the United States, saving and reserving therefrom a right of way 40 feet in width along and over the line of the present road or trail over the granted premises, for the purposes of a road, for the exclusive and joint

use of the board of health of the Territory of Hawaii and its successors, and the United States authorities having the charge and control of said hospital station and laboratory; and granting to the United States a like exclusive right of way upon and over that part or portion of the public lands of the Territory of Hawaii lying between the parcels of land hereby separately granted, now used as a public road or trail, such rights of way as are hereby granted and reserved being indicated upon certain maps of the United States leprosy station sites, dated June, 1905, and traced from Government survey registered maps Nos. 2309 and 1728.

A.—DESCRIPTION OF LANDING SITE, SITUATED ON THE EAST SIDE OF WAIKOLU STREAM, WAIKOLU, MOLOKAI, TERRITORY OF HAWAII, SELECTED BY SURGEON GENERAL WYMAN, P. H. M. H. S., AS PORTION OF FEDERAL LEPROSARIUM.

Beginning at an iron bolt on rocky point overlooking sea and known as Hawaiian Government Survey Trig. Station "Leinaopapio," the true azimuth and distance to Hawaiian Government Survey Trig. Station "Kaupikiawa" being $132^{\circ} 12' 39''$ 11,164.5 feet, and to Hawaiian Government Survey Trig. Station "Mokapu" being $202^{\circ} 32' 9''$ 4,255.1 feet, and the azimuth to Kalawao Protestant Church spire being $105^{\circ} 29'$ and to the cross on Kalawao Catholic Church being $103^{\circ} 43'$, as shown on Government survey registered map No. 2309, and running by true azimuths:

(1) Up center of ridge to rocky ledge in same, the direct azimuth and distance being $330^{\circ} 30'$ 1,418 feet; (2) $79^{\circ} 43'$ 1,174 feet down side of ridge to a + on large solid stone on the east bank of Waikolu stream; (3) thence along the east bank of Waikolu stream to high-water mark on beach, the direct azimuth and distance being $183^{\circ} 05'$ 448 feet; (4) thence along beach along high-water mark, the direct azimuth and distance being $240^{\circ} 00'$ 555 feet; (5) then along the foot of bluff the direct azimuth and distance being $161^{\circ} 53'$ 834 feet; (6) $289^{\circ} 18'$ 224 feet up ridge to the point of beginning. Area, 18.9 acres.

B.—DESCRIPTION OF SPRING SITE, SITUATED ON THE EAST SIDE OF WAIKOLU VALLEY, WAIKOLU, MOLOKAI, TERRITORY OF HAWAII, SELECTED BY SURGEON GENERAL WYMAN, P. H. M. H. S., AS PORTION OF FEDERAL LEPROSARIUM.

Beginning at a + on stone in trail up the east side of Waikolu Valley, the coordinates from Hawaiian Government Survey Trig. Station "Leinaopapio" being south 2,478 feet and east 219 feet, as shown on Government survey registered map No. 2309, and running by true azimuths:

(1) $254^{\circ} 33'$ 385 feet up ridge; (2) $351^{\circ} 00'$ 750 feet along Territorial government water reserve; (3) $117^{\circ} 53'$ 466 feet down ridge to + on stone in trail; (4) thence along east side of trail, the direct azimuth and distance being $215^{\circ} 40'$ 90 feet. (5) $176^{\circ} 53'$ 227 feet; (6) $136^{\circ} 00'$ 168 feet to the point of beginning. Area, 4.5 acres.

C.—DESCRIPTION OF HOSPITAL SITE, KALAWAO, MOLOKAI, TERRITORY OF HAWAII, SELECTED BY SURG. GEN. WALTER WYMAN, P. H. M. H. S., AS PORTION OF FEDERAL LEPROSARIUM.

Beginning at a + on large rock in stone wall, on edge of bluff overlooking sea, the true azimuth and distance to Hawaiian Government Survey Trig. Station "Kaupikiawa" being $159^{\circ} 03'$ 6,130.8 feet, and to Hawaiian Government Survey Trig. Station "Leinaopapio" being $286^{\circ} 15' 30''$ 6,332.5 feet, as shown on Government survey registered map No. 2309, and running by true azimuths:

(1) Along edge of bluff overlooking sea to corner of fence on same, a little west of Waialeia Gulch, the direct azimuth and distance being $333^{\circ} 13'$ 1,893 feet; (2) $65^{\circ} 00'$ 185.5 feet to corner of stone wall; (3) $27^{\circ} 00'$ 285.5 feet along stone wall to + on solid rock; (4) $14^{\circ} 25'$ 585 feet up small hill to + on large rock on edge of bluff; (5) $22^{\circ} 38'$ 616 feet along edge of bluff to + on large rock, the true azimuths to Kalawao Protestant Church spire being $163^{\circ} 24'$ and to cross on Catholic Church being $164^{\circ} 48'$; (6) $31^{\circ} 18'$ 1,013 feet along edge of bluff and down into a small gulch, and along center of same to angle in said gulch; (7) $99^{\circ} 20'$ 1,150 feet along center of small gulch to point in same, opposite the bottom of pali; thence following along the bottom of pali, the direct azimuths and distances being (8) $197^{\circ} 40'$ 810 feet; (9) $219^{\circ} 53'$ 750 feet; (10) $137^{\circ} 18'$ 1,000 feet; (11) $262^{\circ} 15'$ 516 feet to a + on solid rock at point of pali and end of stone wall, the true azimuth and distance to "Leinaopapio" Δ being $270^{\circ} 44'$ 7,015.9 feet to "Kaupikiawa" Δ being $170^{\circ} 23'$ 7,515.3 feet, and the azimuth to Kalawao Protestant Church spire being

184° 12' and to Kalawao Catholic Church cross being 190° 41' 30"; (12) thence along stone wall along Baldwin Home, the direct azimuth and distance being 219° 10', 669 feet; (13) 146° 00', 425 feet along stone wall along Baldwin Home; (14) 219° 00', 1,003 feet along stone wall along Baldwin Home; (15) 306° 20', 65 feet along stone wall along Baldwin Home; (16) 219° 10', 94.5 feet along stone wall along Baldwin Home to the point of beginning. Area, 114 acres.

D.—DESCRIPTION OF RESERVATION SITE, SITUATED IN KALAWAO AND MAKANALUA, MOLOKAI, TERRITORY OF HAWAII, SELECTED BY SURG. GEN. WALTER WYMAN, P. H. M. H. S., AS PORTION OF FEDERAL LEPROSARIUM.

Beginning at Hawaiian Government Survey Trig. Station "Kauhako," on the southwest rim of Kauhako Crater, near graves, the true azimuth and distance to Hawaiian Government Survey Trig. Station "Kalawao" being 175° 45' 8.088.9 feet; to Hawaiian Government Survey Trig. Station "Leinaopapio" being 291° 15' 9" 14,461.6 feet, as shown on Government survey registered map No. 1728, and running by true azimuths:

(1) 137° 21' 1,692 feet; (2) 227° 21' 6,942 feet high-water mark at seacoast; (3) thence along seacoast along high-water mark, the direct azimuth and distance being 336° 10' 3,762 feet; (4) 47° 21' 350 feet to Hawaiian Government Survey Trig. Station "Kaupikiawa," the true azimuth and distance to "Leinaopapio" Δ being 312° 12' 7" 11,164.5 feet; (5) 47° 21' 5,378 feet to an iron bolt on the north side of main government road; (6) 137° 21' 1,869 feet to the point of beginning. Area, 502.6 acres.

In testimony whereof I have hereunto subscribed my name and caused the seal of the Territory of Hawaii to be hereto affixed.

Done at the capitol, in Honolulu, this 28th day of June, A. D. 1905.

By the governor:

[SEAL.]

G. R. CARTER, *Governor*.
A. L. C. ATKINSON,
Secretary of the Territory.

FIRE CLAIMS.

The last annual report of the governor showed that there were eleven "fire claims" bonds unsold, and that there was more than sufficient cash on hand to meet the outstanding awards. During the year these eleven bonds have been canceled and returned to the Secretary of the Interior. Thus out of the total issue of \$326,000 of "fire claims" bonds authorized by the act of Congress approved January 26, 1903, but \$315,000 have been issued. These bonds were dated May 1, 1903, to draw 4 per cent interest; are redeemable any time after five years, and are payable in fifteen years. The cash on hand last year amountd to \$14,182.96, which was \$734.13 in excess of the amount necessary to wipe out all the claims. During the year, through the settlement of various lawsuits and other causes, awards have been presented and paid amounting to \$7,902.18. The following is a complete statement to June 30, 1905:

1903:

Accrued interest appropriated by the legislature, session of 1901.....	\$140,000.00
Transfer from "current cash" to make up amount needed for 10 per cent payment.....	7,317.30
Sales of bonds to June 30, 1903.....	162,000.00
Total receipts.....	309,317.30
Warrants issued.....	\$473,173.00
Warrants paid to June 30, 1903.....	304,584.57
Warrants unpaid June 30, 1903.....	168,588.43
Cash on hand June 30, 1903.....	4,732.73

04:

Accrued interest appropriated by the legislature, session of 1903	\$11,589.83
Sale of bonds to June 30, 1904	153,000.00

Total receipts	169,322.56
Warrants unpaid July 1, 1903	\$168,588.43
Warrants paid to June 30, 1904	155,139.60
Warrants unpaid June 30, 1904	13,448.83
Cash on hand June 30, 1904	14,182.90

05:

Warrants unpaid July 1, 1904	\$13,448.83
Warrants paid to June 30, 1905	7,902.18
Warrants unpaid to June 30, 1905	5,546.65
Cash on hand June 30, 1905	6,280.78

CHINESE FUND.

As the annual reports of the governor of this Territory have previously shown, this Chinese fund, after annexation, was left without any provision of law regarding it. It originally grew up under the Republic of Hawaii, when a special deposit in the treasury was required of each Chinese immigrant toward the payment of his return passage at the expiration of a given number of years which he was allowed to remain in these islands. The first few years after annexation the former secretary of immigration voluntarily continued his supervision of the fund, dispersing the money to those entitled and desiring to return to China. But being without proper checks or responsibility the fund became the special victim of various embezzlements, until finally an act was passed and approved on April 28, 1903, which provided for the care, custody, control, and payment of \$155,546.70, the balance then remaining on hand.

In the governor's annual report of last year there appears to be an error as to the figures, and following is a corrected statement for the three years, which shows a cash balance on hand of \$3,690.80, and it remains to be seen whether this is sufficient to meet all the obligations:

Amount appropriated by act 71, regular session, 1903	\$155,546.70
Amount paid to June 30, 1903	80,986.30
Balance on hand June 30, 1903	65,560.40
Amount paid to June 30, 1904	56,170.75
Balance of account June 30, 1904	9,389.65
Amount paid to June 30, 1905	5,698.85
Balance of account June 30, 1905	3,690.80

Many of the claimants prior to annexation had either died or left the country, thereby forfeiting the right to return passage. There are many now who can not be found, and thus it is impossible to determine the exact amount that will eventually be drawn.

FINANCES.

The heroic work done in the special session of 1904 and the great reduction made in expenditures is now beginning to be appreciated. The fiscal year ended June 30, 1905, shows a balance on the right

side of the books, and for the second time since annexation the expenditures of the Territory have been kept within the income.

Another very important change is that the tendency that had been developed of overdrawing or exceeding appropriations made by the legislature has been checked. This is due to good judgment displayed by the legislature and better methods adopted by heads of departments.

The current indebtedness at the beginning of the year was \$720,093.99. This was more than met by the taxes received during November, and for a considerable period thereafter it was not necessary to register warrants. The end of the year, however, still shows a current indebtedness or outstanding warrants of \$636,039.28.

Thanks to the legislature of 1905, a readjustment of the laws covering the payment of taxes has been accomplished, so that the necessity for registering warrants will be reduced to a minimum. Considerable of the credit for this is due to the influence of Treasurer Campbell, which, however, he is too modest to mention in his excellent article on the finances of the Territory.

During the year the Territory has increased its bonded indebtedness by the issuance of \$1,000,000 public improvement $4\frac{1}{2}$ per cent bonds, series of 1904-5, thus making the total bonded indebtedness of the Territory \$3,137,000, which does not exceed $2\frac{1}{2}$ per cent of the taxable property of the Territory.

TERRITORIAL BONDS.

Under legislative power, provided by section 55 of the organic act, no debt of the Territory can be authorized except to pay the interest upon the existing indebtedness, to suppress insurrection, or to provide for the common defense, except that in addition to any indebtedness created for such purposes the legislature may authorize loans by the Territory for the erection of penal, charitable, and educational institutions, and for public buildings, wharves, roads, harbors, and other public improvements. The total of such indebtedness is very properly restricted to 7 per cent of the assessed value of the taxable property, and for such loans no bond or other instrument of any such indebtedness can be issued unless made redeemable in not more than five years and payable in not more than fifteen years from the date of the issue thereof; nor shall any such bond or indebtedness be incurred until approved by the President of the United States.

Complying with these restrictions, the Territory has a bonded indebtedness of \$3,137,000, and is about to create a further indebtedness of \$750,000, thus making the total sum very nearly \$4,000,000. In disposing of these bonds the Territory has been greatly assisted by the Secretary of the Treasury, who, upon your request, from the time of the first issue under the discretion allowed him by law, has accepted Hawaiian Territorial bonds in security for national deposits up to 90 per cent of their face value, and I desire to express, upon behalf of the Territory, its appreciation of Secretary Leslie M. Shaw's action in regard to the matter and the great assistance it has been to the Territory.

The limitation as to the length of time for which Territorial bonds can be issued has, however, hampered the Territory. One class of investors do not desire a bond of so short a term as fifteen years, and

there always will be considerable expense to the Territory in making provision to refund its indebtedness. On the other hand, another class of investors prefer a bond where a sinking fund is established for the redemption of a certain percentage every year. To meet such the more modern system is to issue a bond redeemable any time after one year and payable before twenty years, provided that 5 per cent of the issue be redeemed each year. It was probably with statehood in view that Congress adopted the general rule for all Territories that their evidence of indebtedness should be limited to short periods, thus providing for comparatively rapid liquidation upon any such change in the form of government. It must be admitted that so far as Hawaii is concerned statehood is in the dim future, and it would seem wise and would be greatly in the Territory's interest for Congress to modify the organic act so as to allow the Territory of Hawaii to make its bonds payable in not more than thirty years from the date of the issue thereof.

In connection with the bonded indebtedness of the Territory the question is constantly arising as to whether other States or municipalities can tax a Territory's bonds. An eminent attorney of New York City is of the opinion that our bonds are not so taxable. It would certainly be of very great assistance to the Territory and desirable if Congress in its amendment would clearly define the position of our securities in relation to this question.

PUBLIC HEALTH.

The public health for the year has been good, as is so clearly shown by Mr. Pinkham, president of the board of health, in his article on our health conditions.

EDUCATION.

No question will play so great a part in the future of these islands in molding our polyglot population into good citizens as a broad and liberal education. It has not been necessary to introduce this cardinal principle of the American people into Hawaii, for it had long since absorbed this much from the mainland, as the articles furnished by Professor Scott and Mr. Davis, superintendent of public instruction, show that the educational system of Hawaii has been developed to a very marked degree, and is believed to have been so modified and arranged as to meet the unique conditions found here and furnish in the end satisfactory results.

ARCHIVES.

From time to time, extending back to the days of the Republic, various legislatures have made small appropriations at the suggestion of public-spirited citizens for the preservation of various documents connected with the government which were known to be stored away in the closets and garrets of sundry public buildings, and under the direction of different officials these were spasmodically overhauled and preserved, with various plans suggested for their ultimate preservation.

From records it appears that Prof. W. D. Alexander, June 13, 1893, first called public attention to the necessity for some action, and reported to the then minister of foreign affairs the deplorable condition in which he found the records and available historical material connected with the Government. Among them were original papers of the early Hawaiian chiefs, letters of David Malo, the distinguished Hawaiian historian, correspondence relating to the diplomatic complications with France and England, documents concerning the recognition of the Kingdom of Hawaii by the United States, England, and France, and other papers relating to our treaties with foreign powers, the treaties themselves, besides original papers relating to the Government, including many hundred manuscripts written by the Hon. R. C. Wyllie, who for a period of more than twenty-one years was minister of foreign affairs of the Kingdom.

Shortly after annexation, the Chief of the United States Bureau of Archives came to Hawaii to look up these documents with a view to having them transferred to Washington, but finally consented to leave them in the Territory, on assurance that every effort would be made to secure a fireproof hall for their preservation, particularly as it was claimed that their relations to land titles was too important to have them leave the Territory.

By an act approved July 11, 1903, the legislature of that year made appropriation under the loan fund for a \$75,000 fireproof building for the purpose of preserving these documents, yet it was evident that until this work was put beyond the effect of changing administrations or officials no plan, however comprehensive, could be permanent. Therefore, early in the session of 1905, an act was introduced providing for a board of archives commissioners, which met the immediate approval of that session, passed early, and was approved April 3, 1905.

In accordance with the act, in addition to Secretary of the Territory Atkinson, Prof. W. D. Alexander and Mr. A. F. Judd were appointed members of the board. Professor Alexander is the author of Alexander's History of the Hawaiian People. He is an eminent scholar, exceptionally qualified for this work. The first action of the board was the appointment of Mr. R. C. Lydecker as secretary of the board, and he entered on his duties May 10, 1905.

The commission at once concluded that the first work should consist in the making of an inventory of the contents of the trunks and packages and in securing a general working knowledge of the documents, preparatory to their classification and indexing, and this work has been progressing rapidly.

Meanwhile, as the appropriation for a building had not yet expired, plans were finally approved and a contract let before July 1, 1905, for a fireproof building, to be completed in December next, at a total cost of \$36,978.34. This building is to stand in the capitol grounds, east of the capitol itself, and facing the road which leads to the Likelike street gate. It will be of brick, covered by cement, one story in height, classic in design, and will consist of two sections—vaults and offices. The vault, which will be large and commodious, will be fitted with steel cases, in which the archives will be stored. The front section of the building will be divided into three rooms—a kind of lobby, across the rear of which will run

a counter, behind which the custodian will have his desk and office; on the right hand a private office and board room, and on the left a room for the use of persons examining the archives and making reference to them.

The commission proposes, when the documents are properly arranged, to have the archives accessible at all times to the public, but all papers must be obtained from the custodian and returned to him. The proper indexing and segregation of the immense mass of material is a work that will require time, and until it is completed the building of necessity must be closed to the public.

It is a matter of congratulation to the Territory that the work of caring for and preserving these valuable documents, tracing as they do the history of Hawaii from the darkness of heathenism, through the sunlight of Christianity, and down to the present time, is at last to be undertaken in a manner that will insure their future preservation. It is a duty that has been too long neglected and one that the country owes to posterity. Though the commission has only been in existence a few months, documents have been found that will result in a saving to the Government of not less than \$7,000, nearly four times the amount that the commission has at its disposal for the next two years, establishing as the documents do the Government's claim to certain lands in a case shortly to come before the courts.

FEDERAL QUARANTINE WHARF.

In an article on "Public Health and Marine-Hospital Service," by Doctor Cofer, he graphically calls attention to the wide scope of that work at this station, from which it is clear that the importance of the system far transcends the local necessity. Modesty forbids Doctor Cofer from elaborating in detail on the excellent work that he and the staff under him have accomplished. The layman will, perhaps, better understand what this branch of service is accomplishing when the statement is made that every steamer touching Honolulu and making for American ports is thoroughly examined. Cultures of doubtful cases are developed, from material taken, after the steamer has left Honolulu. By the time it reaches Puget Sound, Portland, or San Francisco a cablegram can be sent announcing the result of the bacteriological test. Thus the inconvenience to shipping and passengers is reduced to a minimum.

In connection with this work it is unfortunate that it should be the victim of bureaucracy. This community has had no better illustration of the lack of cooperative work among our great Federal departments than the delays in the construction of a quarantine wharf. Two years and six months ago, in the sundry civil act of March 3, 1903, an appropriation of \$80,000 was made for the urgent and immediate needs of the quarantine station, such as laundry plant, a retaining wall around the island to raise its level, and a wharf and runway to connect with it. The community of Honolulu has had disastrous experiences in connection with contagious diseases, which have resulted in a high public sentiment which appreciates quarantine service and the necessity of such precautions. Public-spirited citizens who have endeavored to find the cause for the delay have become hopelessly lost in being referred from one to the other of those departments in which the responsibility for such work rests, and

discouragingly entangled in red tape. However, the Federal quarantine officials are still patiently struggling with the matter, and feel confident that some day the wharf will be built.

HAWAIIANS ARE NOT UTLANDERS.

There is a prevalent impression that the Hawaiian Islands must have undergone a marked change during the five years since they became an integral part of the Union. Few people realize that before the opening of California, or the discovery of gold, Honolulu was a distributing point for provisions and mail for the entire western coast of the North American continent. Many of the hardy pioneers of that great region, then called "Oregon," found it more convenient to reach the Northwest via Honolulu than to undertake the tedious and dangerous pilgrimage across the continent. Throughout the broad expanse of the Pacific Ocean—one might almost say the whole Western Hemisphere—the first school to teach the English language was founded at Vancouver Barracks, in the State of Washington, and the second in Honolulu, the latter being considered the more centrally located of the two.

Thus for decades past the predominant ideals of the people were American. The laws, schools, churches, and elections were modeled on American systems. The Yankee spirit dominated industrial enterprises and infused itself into everything, so that the changes brought by annexation were not abrupt, or so extensive as is generally supposed.

FUTURE.

The discovery of gold and the tide of immigration that flocked to the Pacific coast has resulted in many a magnificent city there, far excelling and outstripping the slowly growing commonwealth of Hawaii. Now, however, the world is awakening to the magnificent possibilities of the Pacific, on which will soon be found the commerce necessary to supply the wants of more than one-half the world's population, tributary to it. The Panama Canal is but the realization of a necessity long recognized. And almost in the center of this great field of activity is this, the smallest political subdivision of the United States of America, with a future presaging great events, suggestive of opportunities. No other community has such prospects, and no similar area of the earth's surface will play so important a part in the world's history that is yet to be made.

NEEDED LEGISLATION.

Desiring as widespread an expression of opinion as possible on the needs of the Territory, requests were sent out to the various commercial bodies throughout the Territory. Responses to these that are of interest will be found in the Appendix:

A.—Recommendations of the Honolulu Chamber of Commerce.

B.—Recommendations of the Honolulu Merchants' Association.

The summary of legislation suggested and recommended is as follows:

First. The passage by Congress of an act under which the Secretary of the Treasury shall cause to be set aside for a period of

twenty years 75 per cent of the customs and internal revenues from Hawaii, to be used in Hawaii, as may be directed by Congress, for the following purposes: (1) The erection of educational and Federal public buildings; (2) harbor improvements and Federal military and naval defenses.

Second. Increasing the supreme court judges from three to five, by amending section 82 of the organic act. Chief Justice Frear has very clearly presented this matter in his article on the judiciary. The supreme bench in most Territories is composed of either five or seven members. With only three judges on the bench, one is often disqualified, and it is not satisfactory to have the work of another court postponed by adjournment in order to allow its judge to sit on the supreme bench.

Third. An act clearly defining the jurisdiction of the circuit courts in Hawaii in reference to their power of naturalizing aliens and legalizing their previous actions in that respect, by amending section 100 of the organic act.

Fourth. Congress to direct the Department of Justice to send out some one to conduct, with the assistance of local authorities, the condemnation proceedings and ascertaining the lawful value of the private fishing rights that have now been recognized by the Supreme Court of the United States as vested interests.

Fifth. Congress to amend section 80 of the organic act, giving the governor power of suspension or removal, between sessions of the Senate, of any appointed officer. This is a matter of grave importance, and was first urged on Congress by Governor Dole. The responsibility for a high standard of efficiency in the Territory and the enforcement of its laws is placed on the executive, although at present he can not remove a single appointee whose usefulness as a public officer has ceased.

Sixth. The experience of another year demonstrates still more forcibly the necessity for Congress to remove the restrictions on leasing agricultural lands to a period of five years. This can be accomplished by an amendment to section 73 of the organic act, allowing such lands to be leased for a period of not over twelve years. It is difficult to make the people of the Temperate Zone understand that the crops of a tropical country are not perennial; many crops require from three to four years to mature. Thus a limitation to five years is practically prohibitive.

Seventh. Reviewing the Territory's experience since annexation, there can be no doubt it would be of great advantage to allow the legislature to meet annually, instead of in biennial sessions. This can be accomplished by an amendment to section 41 of the organic act. At the same time the length of the session should be reduced to forty days, excepting Sundays and holidays, and no extension should be granted, thus amending section 43 of the organic act. With a continuance of biennial elections, such a change would allow two sessions of the legislature to be conducted by the same members. In the second session after an election no time would be lost in organizing and business would be expedited. The increased experience of the legislators would be a gain to the Territory, and there would also be more of a feeling of responsibility resting on them for their own acts in the previous session. In connection with the foregoing, section 54

of the organic act should be amended so that in case the legislature should fail to make the necessary appropriations to carry on the government the previous appropriation bills shall be deemed to have been reappropriated, without the necessity of forcing a special session of thirty days, with extra pay.

Eighth. Congress should pass an act returning to the Territory the former armory site, situated in the rear of the executive building, and taken at the time of the Spanish war. This act could be made to take effect on January 1, 1907, at which time the Kahauiki station will be occupied, with ample quarters for Federal military purposes. The armory site is proportionately much more valuable to the Territory than to the Federal Government.

Ninth. One of the most important questions that concerns the future of these islands is the need of some modification of the immigration laws in order to provide an increase of population to develop the resources of this Territory to the fullest extent. Small as Hawaii is, American statesmen must recognize that the full development of these islands can not be obtained unless they are exempt from general legislation created for conditions that exist on the mainland or Atlantic seaboard.

NEEDED APPROPRIATIONS.

First. An additional appropriation of \$400,000 to continue the work of dredging Honolulu Harbor. Few, perhaps, appreciate the importance of this improvement—not so much to the Territory's advantage locally, but to American commerce as a whole.

Second. An appropriation of \$350,000 for light-houses, to better protect commerce. To include very much needed new front and rear range lights in Honolulu Harbor.

Third. An increase in the appropriation of \$10,000 to provide for two additional judges in the supreme court.

Fourth. An appropriation of \$5,000, under the Federal Department of Justice, for the purpose of carrying out the desire of Congress to condemn private fishing rights in Hawaii.

Fifth. To do justice, appropriations should be made by Congress refunding to the Territory the sums expended between June 14, 1900, and December 30, 1904, for the maintenance of light-houses—an expenditure which no other community in the United States has ever been obliged to undertake; also, refunding to the Territory all its expenditures during the same period in dredging Honolulu Harbor and the housing of the Federal court in a Territorial building.

HEALTH CONDITIONS OF HAWAII.

[By L. E. Pinkham.]

The general health of the Territory has been excellent, there having occurred 2,640 deaths in a population of 154,001, census of 1900, equaling an annual death rate of 17.14 per 1,000 inhabitants.

The quarantine service as administered at the principal port, Honolulu, is very strict, so that during the past year no contagious disease has entered these islands.

There has been no epidemic of local contagious disease, if trachoma be excepted, an eye disease, which was promptly taken in hand and overcome. In a few country localities typhoid fever prevailed, occasioned in all probability by contamination of the water supply during the dry season and the condition of the rain-water tanks in some localities, these private tanks and reservoirs being the only source, as there are many places with no natural water supply.

There have been a few sporadic cases of pestis, amounting throughout the islands for the year to 12 deaths and 3 recoveries.

The board of health has worked in strict and unvarying harmony with the United States Public Health and Marine-Hospital Service, under the control of P. A. Surg. L. E. Cofer, M. D.

Where the government of the Territory, in its belief that economy was paramount, failed to supply the board with the necessary funds for certain objects, the executive officers of the board have secured private aid, as shown in the following paragraphs:

PRECAUTIONS.

No funds having been granted the board of health with which to prosecute works of sanitation or precaution, the Honolulu and Hilo Shippers' Wharf Committees, formed for levying a small tonnage tax on all merchandise imports, have been appealed to. During the past year a constant campaign has been carried on against rats as dangerous in spreading disease. Recently a campaign against mosquitoes has been renewed and many minor sanitary improvements have been undertaken. In Hilo, the above-named committee has oiled and cared for the streets.

OF INTERNATIONAL IMPORTANCE.

In December, 1906, there will be opened to commerce a new route which promises to at once become of vast importance, and over which the bulk of the sugar traffic of the Hawaiian Islands will pass. The Mexican Government has constructed a railroad across the isthmus of Tehuantepec, Mexico, having as its port on the Gulf of Mexico the city of Coatzacoalcas, and on the Pacific Ocean the city of Salina Cruz. These ports have been provided with unusually fine docks and facilities. As this route requires but about half the time consumed by the Cape Horn route, undoubtedly much traffic, as between the Atlantic and Gulf ports and the Pacific ports, will follow this route.

As yellow fever is common in the port of Coatzacoalcas, the Hawaiian Islands will be far more exposed than at the present time to its infection. It is important that every effort be made during the coming year to put the ports of Hawaii into the best possible sanitary condition and that the mosquito be a particular object of attack. Owing to the numerous ponds, lagoons, rice fields, etc., this is no small undertaking. The means, as provided by the legislature, are practically nothing, so that the board of health can not be held responsible for any misfortune arising from this new source of possible infection.

The Federal quarantine officials, particularly the local superior officer, Dr. L. E. Cofer, are alive to this particular matter, and both the Federal and Territorial health officials will act in unison in all measures of protection.

LEPROSY.

It is satisfactory to record the success of the efforts made to interest the Government of the United States in the subject of leprosy. Now that, as a beginning, the Federal Congress has appropriated \$100,000 for hospitals, laboratories, and the necessary accessories, and \$50,000 per annum for maintenance and prosecution of the work, it would seem if science can find a cure or preventive of the disease, leprosy, it should now be discovered.

The Territory has decided by proclamation the mile square of land required by the act. The titles have been passed upon by the United States district attorney as perfect, and Surg. Gen. Walter Wyman, the head of the United States Public Health and Marine-Hospital Service, personally selected the site for the United States station at the settlement. He has encouraged the project in every way and given his assurance the work will be prosecuted with the utmost diligence. As a matter of record the act of Congress covering this subject is here inserted:

AN ACT To provide for the investigation of leprosy, with special reference to the care and treatment of lepers in Hawaii.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That when the Territorial government of Hawaii shall cede to the United States in perpetuity a suitable tract of land

one mile square, more or less, on the leper reservation at Molokai, Hawaii, there shall be established thereon a hospital station and laboratory of the Public Health and Marine-Hospital Service of the United States for the study of the methods of transmission, cause, and treatment of leprosy.

SEC. 2. That the Secretary of the Treasury be, and he is hereby, authorized to cause the erection upon such site of suitable and necessary buildings for the purposes of this act, at a cost not to exceed the sum herein appropriated for such purpose.

SEC. 3. That for the purposes of this act the Surgeon-General, through his accredited agent, is authorized to receive at such station such patients afflicted with leprosy as may be committed to his care under legal authorization of the Territory of Hawaii, not to exceed forty in number to be under treatment at any time, said patients to remain under the jurisdiction of the said Surgeon-General, or his agent, until returned to the proper authorities of Hawaii.

SEC. 4. That the Surgeon-General of the Public Health and Marine-Hospital Service of the United States is authorized to detail or appoint, for the purposes of these investigations and treatment, such medical officers, acting assistant surgeons, pharmacists, and employees as may be necessary for said purpose.

SEC. 5. That the sum of one hundred thousand dollars is hereby appropriated, from any money in the Treasury not otherwise appropriated, for the erection of necessary buildings and other equipment; and fifty thousand dollars, or so much thereof as may be necessary, for maintenance and pay of all officers and employees during the fiscal year ending June thirtieth, nineteen hundred and six.

SEC. 6. That the Surgeon-General of the Public Health and Marine-Hospital Service shall, subject to the approval of the Secretary of the Treasury, make and adopt regulations for the administration and government of the hospital station and laboratory and for the management and treatment of all patients of such hospital.

SEC. 7. That when any commissioned or noncommissioned officer of the Public Health and Marine-Hospital Service is detailed for duty at the leprosarium herein provided for, he shall receive, in addition to the pay and allowances of his grade, one-half the pay of said grade and such allowances as may be provided for by the Surgeon-General of the Public Health and Marine-Hospital Service, with the approval of the Secretary of the Treasury.

Approved, March 3, 1905.

IMPROVEMENTS.

The last legislature made provision for several important and sensible improvements at the leper settlement. There was an appropriation of \$15,000 for an increase in the water supply—one of \$3,000 for a visitors' house and improvement of the landing, one of \$4,700 for new buildings, one of \$2,400 for a pol factory, and one of \$1,000 for the pall trail. Hon. C. R. Bishop is expending upward of \$3,000 on improvements at the Bishop Home for Girls. Hon. H. P. Baldwin has authorized a sewerage system to be put in at the Baldwin Home for Boys, at his expense. With these improvements completed, the settlement will in all probability require in the future little beyond suitable repairs and maintenance, unless it be thought wise to improve the Bay View Home. Preparations are being made to erect a suitable dispensary building.

KAPIOLANI HOME FOR NONLEPROUS FEMALE CHILDREN OF LEPROS.

A committee of the present legislature visited the above-named institution. It was certainly a revelation when they observed the improvements made solely by the labor of the regular employees and girl inmates of the home under the supervision of the good Sisters. From old materials given them they have erected a large dormitory and accessories. An additional appropriation of \$500 afterwards greatly assisted toward proper plumbing and sanitary arrangements.

The committee were visibly affected and were in the mood to consider, and then and there promised to provide for the needs of the nonleprous boys—children of lepers—which subject was urgently brought to their attention. The Kapiolani Home is now very comfortable, and all the inmates are apparently contented, healthy, and happy.

HOME FOR NONLEPROUS BOYS OF LEPROUS PARENTS.

Although for years the need for a suitable home has been urged unavailingly, the above incident seemed to have its effect, as the last legislature appropriated

\$6,000 for the establishment of such a home and \$3,000 per annum for its maintenance. As the ages of these male children range from babyhood to manhood, it is necessary to very carefully consider the proper basis on which to found this institution. The matter is being given the most careful attention, and shortly the home will be established. An attack on the authority of the board of health as to the control of persons affected, or presumably affected, with leprosy was made in the United States district court in the case of Mrs. Mikala Kalpu. The authority of the board was sustained, but an appeal to the United States circuit court of California has been noted. Never in the history of the leper settlement and allied institutions has there been greater general and individual contentment, comfort, and satisfaction. There has not been a single application for permission to leave the settlement, but quite a number to enter the settlement, not as kokuas, but from people desiring a residence with their friends and relatives. The disease seems practically to be about holding its own, as between deaths and new cases.

No efforts are spared to add reasonably to the privileges and pleasures of the residents at the settlement. A fine band stand has been erected at Kalaupapa, a gift of Dr. W. C. Wile, of Danbury, Conn. Mrs. J. M. Dowsett presented a beautiful new upright piano to the Bishop Home, and Mrs. C. B. Cooper secured subscriptions that provided a new chapel organ for the same home.

Hon. H. P. Baldwin presented the Baldwin Home band with new instruments, and, not to be outdone, though others had tried and failed, Acting Governor Atkinson got his lever under the unused government band instruments and sent them to the Kalaupapa band. The baseball league now knows where to send its unused balls, bats, etc. Books and current literature are sent in quantities. A member of the board is simple enough to believe isolated people need more wholesome work and recreation than outside moralizing, and sees to it that cash purses are put up for the winners in shooting and racing contests. Superintendent McVeigh believes in "luau" (native style of feasting) at reasonable intervals. With the attention of friends added, certainly those restrained at the settlement can not feel that they are forgotten.

One of the kindest incidents was the visit of the U. S. S. *Bennington* to the settlement, through the courtesy of Commander Lucien Young, at the thoughtful suggestion of Acting Governor A. L. C. Atkinson. The tragedy that followed at San Diego will fix this incident in the minds of those at the settlement equally with the pleasure occasioned by the visit. In visits to the settlement the lepers have invariably been found polite, thoughtful, and considerate. Their greetings have, in receiving honored visitors, been formal, sincere, appropriate, and often quite elaborate for their facilities. Having found it often advisable to trust to the honor of the leper suspects in Honolulu and the lepers at the settlement, never has a leper suspect broken his or her promise to me; never has a leper at the settlement broken his word unless overpowered by insistent and indiscreet friends.

FREE DISPENSARY.

After being maintained for fourteen months by private charity this institution is now a government charge. The work done at the dispensary during the past six months was as follows:

Number of cases treated.....	6,615	Number of surgical cases.....	739
Number of medical cases.....	5,876	Number of prescriptions filled..	1,364

NATIONALITIES.

Portuguese.....	1,205	Norwegian.....	6
Hawaiian.....	594	Irish.....	5
Porto Rican.....	279	Samoan.....	4
Negro.....	89	Gallician.....	3
Japanese.....	84	West Indian.....	3
German.....	76	Hungarian.....	2
Chinese.....	71	Filipino.....	2
American.....	49	Korean.....	1
Spanish.....	31	Italian.....	1
English.....	17	Malay.....	1
Chilean.....	17	Gypsy.....	1
French.....	10	Danish.....	1
Russian.....	9	Mexican.....	1
Cuban.....	8	South Sea Islander.....	1
Swedish.....	7	Polish.....	1

DIPHTHERIA.

There have been but few cases, and in every instance prompt measures have been taken by the board.

BUBONIC PLAGUE.

From time to time we have sporadic cases of bubonic plague. This is to be expected and is the occasion of no apprehension. The officers of the board of health act with the greatest promptness on these matters so the spread of the disease or infection is quite improbable.

HAWAII'S EDUCATIONAL WORK.

[By James C. Davis.]

In making a report upon the school work done in this Territory it is necessary to speak in detail of its cosmopolitan population in order to convey a proper appreciation of the problem the Territory is trying to solve in its schools.

POPULATION.

The population according to nationality as per latest census, 1900, was 154,001. Hawaiians, 29,787; part Hawaiians, 7,848; whites, 26,252; Chinese, 25,762; Japanese, 61,115; other foreigners, 3,237. All Europeans and white Americans are classed as whites, and under "Other foreigners" are classed Porto Ricans, South Sea Islanders, etc. From the foregoing it appears that of the total population the Hawaiians and part-Hawaiians form 24 per cent; the Asiatics, 56 per cent; the whites, 17 per cent; and the remaining foreigners, 3 per cent.

Of the above classification all of the Hawaiians and part Hawaiians, nearly all the whites, about 6,000 of the Japanese, and also a part of those classed as "Other foreigners" are American citizens.

Complete statistics as to the arrival and departure of Asiatics at this port since 1900 are not available.

From June 1, 1901, to April 30, 1905, the figures are as follows:

	Chinese.	Japanese.	Total.
Arrivals	1,392	35,289	36,681
Departures	6,250	31,424	37,674
Excess of arrivals		3,865	
Excess of departures	4,858		993

As to these two nationalities, therefore, it is probable that the totals are not far from those of 1900.

The Koreans, however, show an increase of 7,388, raising slightly the percentage of Asiatics.

The native-born population, as per latest census, was 63,216—Hawaiians, 29,787; part-Hawaiians, 7,843; whites, 16,446; negroes, 178; South Sea Islanders, 60; Japanese, 4,881; Chinese, 4,021. Of this total population 41 per cent were born in this country, and of this number 8,902 are of Asiatic parentage. Of the entire number of Hawaiian-born Asiatics, about 5,485 were born since the annexation of these islands to the United States and are therefore eligible to citizenship. Add to these the number of Asiatic children whose parents were citizens of the Monarchy and of the Republic, and we have about 6,000 Asiatics possessing the inceptive right of American citizenship. I understand upon inquiry that the number is probably much larger, as this class of our people have not been very faithful in the registration of births and deaths. Deduct 6,000, the approximate number of Asiatics capable of becoming citizens by right of birth, from 86,877, the total Asiatic population, and we have 80,877, or nearly 52½ per cent of the entire population, incapable of citizenship, and we find further that out of the entire citizenship of 71,323 about 6,000, or about 8½ per cent, are of Asiatic parentage.

PUPILS.

The total enrollment in all the schools, according to nationalities, for the years 1904-5, was as follows:

	1904.	1905.		1904.	1905.
Hawaiians	4,877	4,972	Chinese	1,650	1,985
Part Hawaiians	3,234	3,284	Other foreigners	745	650
Whites	5,873	5,806			
Japanese	2,920	3,609	Total	19,299	20,406
Public schools:			Private schools:		
Hawaiians	4,121	4,148	Hawaiians	756	824
Part Hawaiians	2,254	2,331	Part Hawaiians	981	953
Whites	3,851	3,882	Whites	2,022	2,024
Japanese	2,483	2,938	Japanese	437	671
Chinese	1,192	1,353	Chinese	458	632
Other foreigners	567	550	Other foreigners	178	100
Total	14,467	15,202	Total	4,852	5,204

The foregoing tables show the entire enrollment for 1905 in public and private schools to be 20,406, as against 19,299 for the year 1904. The gain for the past year was 1,107, of which 735 were in the public schools and 372 in the private schools. In the public schools the Hawaiians and whites show a small increase, the part-Hawaiians and those marked "Other foreigners" have suffered a slight decrease, while the Japanese and Chinese make up 84 per cent of the entire increase in the public schools. This great increase in enrollment on the part of the Japanese and Chinese is due in part to the fact that a great number of the children of this class of our people are just becoming of school age, and in part to the fact that the Japanese and Chinese put their children into school just as soon as the law permits, and in many cases these children are enrolled before they reach school age.

The total enrollment in all the schools, according to age, for the year 1905 was 20,406.

	Under 6.	Between 6 and 8.	Between 8 and 15.	Over 15.	Total.
Boys	565	3,106	6,592	804	11,127
Girls	591	2,550	5,500	638	9,279
Total	1,156	5,656	12,092	1,502	20,406
Public schools:					
Boys	119	2,481	5,482	274	8,356
Girls	100	2,013	4,453	280	6,846
Total	219	4,494	9,935	554	15,202
Private schools:					
Boys	446	625	1,110	500	2,771
Girls	491	537	1,047	358	2,438
Total	937	1,162	2,157	948	5,204

The law of the Territory compels all children mentally and physically able, between the ages of 6 and 15, to attend school. The above tables show 1,156 pupils under 6 years enrolled in school. Of this number, 219 are in the public schools and 937 in the private schools. While the school law places the age limit between 6 and 15, the department leaves the enrollment of children under age to the principals of the different schools, with the provision that children not within school age must never be enrolled if by so doing children of school age are crowded out. The large number of pupils under 6 years in the private schools represents the entire kindergarten enrollment. As to pupils over age, 554 are in the public schools and 948 in the private schools. The department rather encourages ambitious, intelligent, young people to remain in school, and the teachers do all they can to keep these young people with them as long as they have room and time for them.

The enrollment in public schools according to the course of study was as follows:

Receiving grade-----	1,484	Seventh grade-----	341
First grade-----	4,454	Eighth grade-----	118
Second grade-----	3,030	High school course-----	143
Third grade-----	2,292	Normal school course-----	125
Fourth grade-----	1,669		
Fifth grade-----	1,001	Total-----	15,202
Sixth grade-----	545		

The preceding table shows 12,929 pupils, or 85 per cent of the entire enrollment, in the first four years; 2,005, or 13 per cent, in the four upper grades; and 268, or 2 per cent, in the high school and normal school courses.

The comment here is that 85 per cent of the pupils enrolled in the public schools never get any further than the primary grade, due primarily to two causes: First, that the greater part of the pupils enrolled in the public schools are compelled to leave school as soon as they reach the legal age limit and assist in the support of the family; second, that it takes most of the pupils two years' time to do one year's work as laid down in the course of study.

Enrollment in the public schools in manual training, etc.

Sewing-----	6,507	Lauhala and bamboo-----	645
Knife work-----	392	Mat weaving-----	145
Agriculture-----	10,250	Other manual training-----	1,489
Drawing-----	1,002	Singing-----	15,000

In all the public schools, manual instruction of some sort is given. The instruction in sewing consists in teaching both girls and boys hemming, seaming, gathering, patching, and making buttonholes. The work in agriculture consists mostly in weeding, planting, and caring for plants and trees and mowing the schools lawns. The influence of well-kept school yards shows itself in the neat dooryards of communities throughout the Territory. Plaiting, weaving, and knife work are carried on in most schools, and in many cases they are carried into the homes by the pupils. Singing and drawing are taught in all the schools. The Hawaiians as a race possess natural talent in both of these branches of human accomplishment. Both systems of vocal music—the tonic sol-fa and the staff notation—are taught; the former through the first three years of the child's musical training and the latter through the upper grades. The purpose of manual education in the public schools, aside from training the hand and eye in the use of tools, is to develop the moral and æsthetic powers of the child's mind.

Total number of teachers in all the schools for the years 1904 and 1905.

	1904.	1905.		1904.	1905.
Hawaiians-----	83	81	Chinese-----	16	27
Part Hawaiians-----	86	105	Other foreigners-----	16	27
Whites-----	436	440			
Japanese-----	9	7	Total-----	646	687
<hr/>					
Public schools:			Private schools:		
Hawaiians-----	61	69	Hawaiians-----	22	12
Part Hawaiians-----	73	85	Part Hawaiians-----	13	20
Whites-----	259	250	Whites-----	177	190
Chinese-----	3	4	Japanese-----	9	7
Other foreigners-----	3	6	Chinese-----	13	23
			Other foreigners-----	13	21
Total-----	399	414	Total-----	247	273

The foregoing table gives 687 as the whole number of teachers employed in the public and private schools during the year just elapsed as against 646 for the year 1904.

In the public schools there were 414 teachers and in the private schools 273 for the year 1905, while in the public schools for the previous period there were 399 teachers and in the private schools 247. The increase in the number of teachers in the public schools for the past year was 15, and that in the private schools was 26. The average number of pupils per teacher in the public schools for the past year was 37, and the average number under each teacher in the private schools was 19. The Hawaiian and part Hawaiian teachers in the public schools have increased 20 in number for the past year; the whites have decreased 9, the Chinese have gained 1, and those classed as "Other foreigners" have increased 3. Of the 414 teachers in the public schools during the past year 205 were born and educated here, and of this number 120 have been trained in the normal school in Honolulu. Of the 250 white teachers 102 are from universities, colleges, and normal schools abroad.

TEACHERS' ASSOCIATION AND READING CIRCLES.

There is a Territorial teachers' association which has its headquarters and place of meeting in Honolulu. To membership in this association all teachers in the public and private schools in the Territory are admitted.

In the meetings of the association addresses and papers on educational matters are listened to and discussed. There is a course of reading laid down by the association covering a year's work in professional and general culture. This reading matter includes books on pedagogy, school management, methods, and general literature.

In each district there is an association and reading circle in which the course of reading assigned by the general association is read, studied, and discussed. These readings and discussions do much toward creating and maintaining a pride of profession among the teachers. The regulations of the department encourage teachers to organize and attend the meetings of these associations. In many districts distances are so great, transportation so dear, and living accommodations so poor that the attendance upon these meetings is quite an item of expense. Still in many districts the sacrifice is made, and teachers deserve great credit for the faithfulness shown in the endeavor toward improving themselves in their chosen work.

The total number of schools according to grade for the years 1904 and 1905 was 213.

		1904.	1905.			1904.	1905.
Kindergartens	18	18	Seminaries	13	13		
Primary schools	56	60	Orphanages	1	1		
Primary grammar schools	110	113	Reform schools	2	2		
High schools	1	1	Colleges	2	2		
Normal schools	1	1					
Industrial schools	3	3	Total	207	214		
Public schools:			Private schools:				
Primary schools	32	36	Kindergarten schools	18	18		
Primary grammar schools	110	113	Primary schools	24	24		
High schools	1	1	Industrial schools	2	2		
Normal schools	1	1	Orphanages	1	1		
Industrial schools	1	1	Seminaries (female)	13	13		
Reform schools	2	2	Colleges	2	2		
Total	147	154	Total	60	60		

The above list shows the whole number of schools to be 214 for the past year, of which 154 are public schools and 60 private. The increase in the number of public schools during this period was 7. They are classified as above in order to give a somewhat clear idea of the grade and sort of instruction given in the schools of the Territory.

The kindergarten schools are all under the auspices of the "Kindergarten Association." These schools form the link between the home and the school life of the child, and they are maintained and conducted as private schools.

The primary schools are those in which the work done at present is not beyond the first four grades of the common school course. They are not confined to those grades; they may do more advanced work. The primary grammar

schools do primary grade work and more or less grammar grade work. A few of these schools do something in the first year high school course.

There is at present only one high school in the Territory—the one in Honolulu. The work done in this school compares favorably with that done in similar schools on the mainland. It is placed on the accredited list of Stanford University, of California. The commercial department of this school has done much toward furnishing our business houses and government offices with stenographers, typewriters, and bookkeepers. There are three other schools, one each at Wailuku, Hilo, and Lihue, aspiring to be classed as high schools, and which have already begun work on the high school course.

The normal training school, established in 1896, is soon to move from its present cramped and unfit quarters into its new modern building. This school has granted during its ten years' existence 33 diplomas and 131 certificates. Out of the whole number of young people holding diplomas and certificates from this school there are 120 teaching in the public schools. This means that nearly 30 per cent of the teachers employed in the public schools have been trained in our normal school here in Honolulu.

Lahainalua, the industrial school, has just been installed in new buildings, and is now fairly equipped for its work as an industrial and agricultural school. The enrollment for the past year was 55. The enrollment for the coming year is expected to be much larger.

There are two reformatory schools in the Territory—one for girls at Honolulu and the other for boys at Waialeale. The reform school for girls occupies the premises formerly used by the reform school for boys. The premises, while too small for the large enrollment of boys, are quite sufficient and comfortable for the girls. The matron of the school reports as follows upon the numbers received and dismissed for the past year:

In school July 1, 1904	8
Received year ended June 30, 1905	10
	18
Released during year ended June 30, 1905	1
	17
In school July 1, 1905	17
Between 8 and 15 years of age	10
Over 15 years of age	7
	17

All of these girls with one exception were committed for disobedience to parents.

The reform school for boys is situated on the railroad about 60 miles from Honolulu. The site is pleasant and beautiful and gives ample room for dormitories, shops, and schoolrooms, and arable land. The buildings are all new and well equipped for the work of correcting youthful tendencies toward the acquiring of bad habits.

In both of these reform schools there is a system of merits and demerits, which seems to work very satisfactorily. The following is the report of the superintendent of the reform school for boys as to the numbers received and released during the year just elapsed:

Enrolled July, 1904	105
Admitted during the year	37
	142
Released during the year	43
	99
Enrolled June 30, 1905	99
Between 6 and 8 years of age	3
Between 8 and 15 years of age	78
Over 15 years of age	18

99

The offenses for which these boys were committed were truancy, vagrancy, disobedience to parents, and petty theft. The greater portion were committed for truancy, vagrancy, and disobedience to parents.

The present legislature enacted a law establishing a juvenile court. This act provides that all offenders under 16 years of age shall be tried separate and apart from those of more mature age; that youthful offenders charged with minor offenses, such as truancy, disobedience to parents, petty theft, etc., may, in the discretion of the court, be paroled and placed under the surveillance of probation officers. The probation officers are appointed by the district magistrates. Each magistrate appoints three. These probation officers visit the parents, guardians, or teachers who have charge of the boy or girl paroled, and receive a report as to the conduct of the paroled offender and report in turn to the committing magistrate. When a satisfactory probation has been served the culprit is released from parole. If, however, the paroled offender seems incorrigible, he is summoned before the magistrate and committed to the reform school or to jail.

It is hoped that the working of this court will obviate placing in the reform schools children who have not yet acquired fixed habits of vice. The private primary schools are largely denominational and do the same work as the schools of the same class among the public schools.

The private industrial schools are the Kamehameha schools for Hawaiian boys and girls. They are endowed and maintained for the purpose of training young people in the industries and in domestic science. In addition to this training they give academic courses equivalent to the first year in the high school course.

The Kona Orphanage is a private enterprise, supported by contributions. The legislature in its recent session appropriated \$3,000 to its support, but no reason is yet apparent for it being placed by them under appropriations for this department.

The seminaries are denominational schools. They give industrial and academic training. The idea is to make good housekeepers of the girls and industrious citizens of the boys.

Oahu College, a well endowed and equipped institution, does high-class college entrance work. It is one of the oldest schools in the islands, and its graduates are among the most successful professional and business men in the community.

St. Louis College is a Catholic school of long standing, and does good work in all the grades from the primary through the high school course.

In addition to schools already mentioned there is in every community having any considerable number of Japanese and Chinese a school held after 2 p. m. each day except Sunday in which the Japanese and Chinese languages are taught to Japanese and Chinese children. These schools are designed to teach these Asiatic children their mother tongue and something of the history of their country, so that the boy or girl in the future, if he or she so desires, can return to the land of his or her father with the power to use its language and with some knowledge of its history, laws, industries, and customs. It is very probable that not all of these Hawaiian-born Asiatics will return to the East; in such case the part remaining here and exercising the duties and privileges of American citizenship can exercise such duties and enjoy such privileges with intelligence, having acquired this intelligence in the schools in this Territory.

NEW SCHOOL BUILDINGS.

There have been built and contracted for during the past year 41 public school buildings—30 schoolhouses, 9 teachers' cottages, and 2 dormitories. These 30 school buildings contain 92 rooms and furnish capacity for 4,140 pupils; 35 of these 41 buildings replace buildings out of repair and unfit for further use, and 5 are for the purpose of accommodating the increase in the school population. Thus it is seen that the school accommodations, as to buildings, have been very materially improved during the past year.

The following is a list of facts that do not appear in the body of this report, but which are necessary to an intelligent understanding of the school work in this Territory:

Total population of the Territory as per last census.....	154,001
Total number within school age, as nearly as can be ascertained....	19,374
Percentage of total population enrolled in all the schools.....	13½
Percentage of total population enrolled in public schools.....	9½
Percentage of total population enrolled in private schools.....	3½
Percentage of total population within school age.....	11½
Percentage of total population within school age enrolled in school..	91.6

Average daily attendance of pupils enrolled in public schools, per cent.	87
Average wage paid to teachers in the public schools per month-----	\$51
Number of public school buildings, schoolhouses-----	184
Number of public school buildings, teachers' cottages-----	79
Total value of all public school buildings, schoolhouses, and teachers' cottages, including land-----	\$810, 000
Total value of all private school property-----	\$1, 333, 000
Average cost of tuition in public schools per annum-----	\$16. 87
Total number of school days in the last school year-----	182

SOCIOLOGY AND EDUCATIONAL PROBLEMS.

[By M. M. Scott.]

Hawaii may not inaptly be called a museum of ethnology, and the making of good American citizens of her mixed youth a problem in sociology. Nowhere else in the world are specimens of so many races congregated in so small a compass, and under conditions so favorable for constant contact in industries, business, schools, churches, and social gatherings. The utmost democratic spirit prevails in society, in the churches, and in the schools. Race prejudice is here reduced to a minimum. Boys from the schools, of the many races, all mixed up in the same teams, meet in football, baseball, and aquatic sports, and girls of a like mixture contest the basket-ball field. This condition of affairs sometimes astonishes and even shocks strangers from abroad, especially if they be untraveled and of a Brahmanic turn of mind.

In British India there are about 150,000 Eurasians, or half-castes, that occupy an anomalous position in the social organization. They are superior in education and social culture (according to western standards) to the native, and English society does not recognize them. To English and European society of India, the unfortunate half-caste is not only a "baboo," but he is tabu as well. Enlightened and philanthropic Englishmen have noted and regretted this state of affairs, and they characterize it as one of the darkest spots in the otherwise beneficent rule of England in India, and they also predict that it will constitute one of the chief sources of unrest and future trouble for England in her vast vice-regal empire.

The dominant note in the sociological and educational problems of the Territory of Hawaii—in short, in her civilization—is and has been since the arrival of the first missionaries American. During the monarchy the churches, schools, business methods, social usages, even the political conditions, were American. American national holidays, especially the Fourth of July and Washington's Birthday, were celebrated as regularly and with as much enthusiasm as in Boston or San Francisco.

In visiting Honolulu European travelers who expected to find a sleepy dirty South American town were surprised and pleased to observe a bustling American city in the Tropics. Even if a monarchy, the prevailing tone of unconventional American manners prevailed.

The first thing the American missionaries persuaded the King to do in his division of lands was to follow the American example and set aside the lands not otherwise appropriated at the time as part of a permanent fund to be used for the education of all children. American books were translated into Hawaiian, and thus the first knowledge the child got of any country was of the United States.

From the foregoing facts it is easy to see that the transition of Hawaii from a sovereign little mid-ocean monarchy to a dependent American territory was neither difficult, disappointing, nor unexpected.

A new and interesting problem now presents itself to the thinkers of this Territory. In the economic development of the resources of the country a very large number of Orientals have come here, and they are still coming. It was not their intention originally to bring their wives and children with them, but it was insisted upon by government and the planters many years ago that a certain proportion of the immigrants should be women. That was before annexation. Under that rule quite a large number of Japanese women and children arrived. Last year about 500 Japanese children were born in Hawaii.

According to the report of the superintendent of public instruction for the past year, there were over 4,000 Japanese and Chinese children in the public

schools of this Territory, nearly equaling in number the Hawaiian children. The male children of these two races born here will be American citizens if they choose to remain after their majority, and will become voters and office-holders. The question is, What instrumentalities can be brought to bear upon them that will make them good American citizens? Is it possible for the State and society to take the children of races so diverse from Americans as are the Japanese and the Chinese and by some educational, social, and political crucible fuse them and turn them out homogeneous Americans?

This is the practical and very interesting problem that presents itself to the people of this Territory, the solution of which is sought by both statesmen and social philosophers. There is no better place than Hawaii for an experiment of this kind. The country is small in area. The population is limited. The Orientals come into daily contact with Americans, men and women of light, and leading in every relation of life. The old missionary set the example, which the man of business and of industry has, to a large extent, followed. The Chinese have always been treated here in decided contrast with the treatment they have received in California. By the advice of the early missionaries, and through their organizing power, the King and legislature made provision for an excellent system of public schools. That system, modernized and improved, is the fundamental agency by which the children of the diverse nationalities of Hawaii are to be trained, reared, and transfused into American citizenship.

Can it be done? The most thoughtful educators of this Territory answer, emphatically, yes. It is being done now. It has been done. Both Chinese and Japanese born and nurtured in Hawaii are among our best citizens. They hold and exercise the franchise. They are industrious, accumulate property, are charitable and law-abiding.

They seem to select and vote for, as if by unerring instinct, the best men for office. The children of the Territory meet in the schoolroom, the playground, the church, and the Sunday school. They sing the same patriotic American songs. They read American history and literature. The higher grades are well instructed in the principles and practice of free government—national, State, and Territorial. It is the unanimous testimony of the teachers that no class of children respond more readily and intelligently to both moral and intellectual instruction than do the Orientals.

The recent tendency of the best scientific thought among both biologists and sociologists is that nurture has more influence upon human character than nature—environment than heredity, to put it in the language of the schools. Inborn tendencies in any race are but tendencies—mere potentialities. Education, social and political environment seize upon these potentialities and work them up into the finished product—into actualities. But this work must be done chiefly in the schools. The minds of the young are extremely plastic. Almost any system of morals may be impressed on the minds and emotions of youth.

It is also observed by the teachers in our schools that the Orientals are very fond of the study of the principles of the American democracy. These principles meet with their enthusiastic approval. There is no reason, therefore, either in theory or practice, why the children of races so strong in moral and intellectual power as the Chinese and Japanese, trained in American schools, society, and political principles, should not make excellent American citizens. All this is not mere theory. But if it were theory only, it is founded on the soundest principles of deductive reasoning. It is not mere speculation, because we have already proven the postulate in Hawaii, as shown in the foregoing statements, and we are demonstrating it now on a much more extensive scale in our wise system of free and compulsory education.

Many of the most thoughtful Philippine teachers returning to America, through Honolulu, after examining our schools and their results, have declared that Hawaii has solved, and is solving, the educational and social problem for our insular possessions.

They believe that it would be of inestimable value to the educational welfare of both Porto Rico and the Philippines if an able commission could be appointed from these two possessions to inquire into and report upon the methods and progress of our system.

FINANCES.

[By A. G. Campbell.]

The report of the treasurer of the Territory to the governor of a year ago recommended several changes which needed legislative action to put into effect. The last legislature at its regular session wisely passed several of the necessary laws.

The principal change was made in the tax laws. (Acts 87-99, session 1905.) Heretofore real and personal property were returned for taxation purposes as of January 1, and income tax returns were made in July to cover the twelve months preceding, and all these classes of taxes were due September 1 and delinquent November 15. After January 1, 1906, while the time for returning real and personal property is not changed, the income tax returns will also be made in January to cover the twelve months preceding and all these taxes are to be payable in two installments, one-half in May and one-half in November. Besides dividing the payment into two installments, and thus making it easier for some classes to promptly meet this obligation, this method has the additional advantage of so distributing the receipts from this source, which now come into the treasury the latter part of the year, that the necessity for registering warrants will be reduced to a minimum.

The law with reference to the time and manner of collecting the licenses was also changed (act 32, session 1905) and now all licenses expire on June 30 of each year; this also brings money into the treasury at a time when receipts from other sources are at a minimum. Several of the license laws were amended and the liquor-license law was entirely repealed, and a new law (act 67, session 1905) enacted in its stead. This law went into effect the first of this year, and it remains to be seen how it will stand the test of trial. In the old law the governor and the treasurer had considerable discretionary power in issuing licenses, and they were not issued indiscriminately either as to persons or localities. Under the law now existing, any applicant, unless he has been convicted of a felony, gross cheat, gambling, or a violation of the said liquor law, must be granted a license, providing that a majority of property holders in the immediate vicinity consent to having the license issued.

The foreign-corporations license was also changed (act 98, session 1905) to the fixed amount of \$300 per annum instead of one-tenth of a mill on the authorized capital and new licenses were imposed as follows during the session of 1905:

Physician's license (act 48)-----	\$10	Secondhand dealer's license (act	
Osteopath's license (act 48)-----	10	31)-----	\$25
Pawnbroker's license (act 35)-----	50	Emigrant agent's license (act 57) -	500
Horseshoer's license (act 46)-----	5		

CORPORATIONS.

Heretofore the cost of filing corporation papers was simply the cost of recording same and \$25 for stamps. In addition to these charges the last legislature imposed a schedule of filing fees (act 91, session 1905) very similar to what is in use in many of the States on the mainland.

REGISTERED WARRANTS.

While the receipts of the Territory during the twelve months ended June 30, 1905, exceeded the expenditures by \$86,849.91, still during all but two months of this period all warrants drawn on the treasury by the auditor, either for salaries or for material had to be registered because cash was not available to pay them on presentation. The changes above referred to which advance the time of collection of at least \$600,000 of taxes from November to May will necessarily relieve this condition. But as the necessity for registering warrants is likely to occur at any time, and as it always creates dissatisfaction, it might be well to call the attention of Congress to the advisability of so amending section 55 of the organic act that the doubt which now exists as to the Territory's right to avail itself of a bank overdraft or loan for temporary purposes would be removed. With such an amendment and the adoption of a policy of depositing Territorial funds in banks with Federal or Territorial bonds as security, no risk would be incurred and great relief might at times be rendered.

Other new legislation which may be mentioned in connection with this department is the direct inheritance tax law—act 102, session 1905. Heretofore there was a collateral inheritance tax law in force which imposed a tax of 5 per cent on all inheritances received by others than a mother, father, son, daughter, adopted child, or grandchild. All gifts or inheritances not coming under the provision of that law were taxed under the income tax law 2 per cent on the amount of money or value of personal property, real property being exempt. This collateral inheritance tax law was repealed and a direct inheritance tax law passed to take its place. This law is drawn on modern lines, excepting that the rate of tax is the same for all amounts, viz. 5 per cent for all inheritance by collateral heirs in excess of \$500 and 2 per cent for all inheritance by direct heirs in excess of \$1,000, and the law contains all the provisions for appraisement of the estate by appointees of the court, and gives the court supervision over the collection of the tax.

BUREAU OF CONVEYANCES.

During the year the work of this office has progressed, and the legislature passed several measures which will facilitate the work and give the public better service. The collections during the year were \$13,615, against collections of the previous year of \$13,926, and the expenses of the office were 57½ per cent of the collections, or \$7,850.97, against the previous year's expenses of \$4.09 per cent of the collections, or \$11,710.33.

BONDED DEBT.

The bonded debt of the Territory on June 30, 1904, was \$2,185,000. During the year this was further increased by the sale of one thousand 4½ per cent \$1,000 bonds at a premium of one-tenth of 1 per cent, and decreased by the payment of 5 per cent bonds amounting to \$48,000.

A detailed statement of all the bonds outstanding on July 1, 1905, is as follows:

Loan act June 13, 1896 (outstanding) (Issued by authority of act of the legislature of the Republic of Hawaii, approved June 13, 1896; interest at 5 per cent per annum, payable semiannually; bonds redeemable in five years and payable in twenty years from July 1, 1896)	\$822, 000
Fire-claims bonds (issued by act of Congress approved January 26, 1903; interest at 4 per cent per annum, payable semiannually; bonds redeemable in five years and payable in fifteen years from May 1, 1903)	“ 315, 000
Public improvement 4½ per cent bonds, series 1903-4 (Issued by the authority of act of the legislature of the Territory of Hawaii, approved April 25, 1905, and approved by the President of the United States; interest payable semiannually; bonds redeemable in five years and payable in fifteen years from October 1, 1903)	“ 1, 000, 000
Public improvement 4½ per cent bonds, series 1904-5 (Issued by authority of act of the legislature of the Territory of Hawaii, approved April 25, 1903, and approved by the President of the United States; interest payable semiannually; bonds redeemable in five years and payable in fifteen years from January 2, 1905)	“ 1, 000, 000
Total bonded debt July 1, 1905	3, 137, 000

A contract has been signed whereby \$600,000 of the above \$822,000 5 per cent bonds will be refunded on October 4, next, by \$600,000 of a refunding bond issue bearing 4 per cent interest. This 4 per cent refunding bond issue sold at 101½ to a Honolulu capitalist.

The next issue of bonds bearing 3½ per cent interest will be placed on the market the latter part of this year, and from all indications will sell well.

^a Total authorized issue, \$326,000. Total required and issued, \$315,000.

^b Total authorized issue (to be approved by the United States), \$5,000,000.

TAXABLE PROPERTY.

The assessable value of real and personal property in the Territory on January 1, 1904, was \$123,898,504, divided as follows:

Taxation division.	Real estate.	Personal property.
First.....	\$32,131,006	\$37,451,555
Second.....	11,046,619	5,419,616
Third.....	14,916,221	11,833,177
Fourth.....	5,421,043	5,077,177
Total.....	63,516,979	60,881,525

While the assessable value of real and personal property in the Territory on January 1, 1905, was \$133,924,100, divided as follows:

Taxation division.	Real estate.	Personal property.
First.....	\$31,625,579	\$38,640,381
Second.....	13,751,078	6,967,738
Third.....	15,179,975	12,640,727
Fourth.....	6,952,404	8,166,218
Total.....	67,509,036	66,415,064

Showing that during the year assessable property has increased \$10,025,596. Besides the 1 per cent on the assessable taxable value as shown above, the income tax and specific taxes increase the revenue from this source. The taxes collected during the year ended June 30, 1905, amounted to \$1,626,075.50, and this was \$55,123.97 less than was collected during the preceding twelve months. The total cost of assessing and collecting these taxes, including costs of all stationery and material, was \$59,655.71, or 3.66 per cent of the amount collected; while the total cost of assessing and collecting the taxes for the preceding year was \$71,362.16, or 4.24 per cent of the amount collected.

Revenue, Territory of Hawaii, for the year ended June 30, 1905.

RECEIPTS.

Licenses	\$107,303.16
Revenue stamps.....	26,255.70
Corporations and copartnerships.....	1,827.00
Inheritance tax.....	6,271.71
Insurance tax and filing fees.....	8,509.59
Accrued interest on bonds.....	7,757.08
Real estate tax.....	609,343.72
Personal-property tax.....	570,654.55
Carriages, carts, and dray tax.....	18,148.00
Road tax.....	99,996.00
School tax.....	99,996.00
Poll tax.....	49,998.00
Dogs and tags tax.....	5,395.50
Penalties and costs tax account.....	15,429.60
Income tax.....	157,057.98
Bureau of conveyances.....	13,615.00
Land registration court.....	823.22
Rents, public works.....	38,204.27
Excavator and garbage.....	8,803.25
Sewerage.....	13,155.88
Market.....	1,127.70
Weights and measures.....	105.65
Land sales, public works.....	139.85
Waterworks.....	131,336.90
Wharfage, Honolulu.....	29,270.34

Pilotage, Honolulu	\$21,890.63	
Wharfage and pilotage, other islands	3,696.75	
Kerosene storage	5,910.57	
Powder storage	1,352.09	
Bureau of health	23,318.26	
Judiciary department	75,614.16	
Agriculture and forestry	459.25	
Survey	531.30	
Land sales, public lands	37,253.92	
Land revenue, public lands	130,763.95	
Department of public instruction	6,828.31	
Secretary of the Territory	7,900.25	
Auditing department	223.25	
Miscellaneous realizations	18,156.68	
		\$2,354,813.02
Cash balance July 1, 1904		56,613.29
Total receipts		2,411,426.31

DISBURSEMENTS.

Outstanding warrants July 1, 1904, legislative and those drawn by the auditor	\$720,093.99	
Departmental expenses July 1, 1904-June 30, 1905, being amount of warrants drawn by the auditing department	1,917,341.16	
Interest on bonded debt	119,236.40	
Interest on registered treasury warrants	19,758.20	
Regular and extra session legislature, 1905	54,679.09	
Transferred to road tax special deposit	118,144.00	
Transferred to land sales special deposit	37,980.71	
Transferred to land sales special deposit, legislative resolution No. 6	761.26	
Unpaid warrants 1898-99	62.19	
		\$2,988,057.10
Less receipts		2,411,426.31
Net current indebtedness July 1, 1905		576,630.79

RESUME.

Outstanding warrants July 1, 1904	\$720,093.99	
Less cash on hand July 1, 1904	56,613.29	
Net floating indebtedness July 1, 1904		\$663,480.70
Outstanding warrants, July 1, 1905	636,039.28	
Less cash on hand July 1, 1905	59,408.49	
Net floating indebtedness July 1, 1905		576,630.79
Floating debt reduced during twelve months		86,849.91

During the twelve months included in this report current receipts of the Territory have exceeded the obligations incurred during the same period by \$86,849.91, which is in marked contrast to the twelve months' period preceding, where the current receipts were \$495,948.91 short of meeting the obligations incurred. Figuring on a conservative basis, the floating indebtedness of \$576,630.79, outstanding at the close of the period just passed, will be all paid during the present year, and on June 30, 1906, there will be a cash balance in the treasury.

PUBLIC WORKS DEPARTMENT.

[By C. S. Holloway.]

Since the passage of the county act the department has been practically relieved of all further responsibility for the repair and maintenance of public highways, and the office force was correspondingly reduced. Thus, at the present time the only work done in addition to the regular routine of the department is the completion of those improvements already contracted for

under the previous loan act and such work as the administration may carry out under the proposed loan.

In the carrying out of public improvements it has been the aim of this department to provide permanent structures and secure careful preliminary investigations by competent engineers, especially in the placing of bridges and the locating of new roads.

With the large number of contracts involved in the expenditure of loan money during the past year the routine of this department has been greatly increased. Numerous improvements have been made and new systems put into effect under the direction of the chief clerk. A complete reindexing and filing of the plans in the assistant superintendent's office has been brought about, thus affording easy reference to the records of the office. A system of receiving weekly reports from inspectors on all Government work has been put into operation, particularly to keep in close touch with the work on the other islands, and on the completion of the same the reports furnish a very fair idea of the cost of the contract to the contractor and are valuable for reference.

On account of the large amount of work which it was necessary to have under way before June 30, 1905, at which time the appropriations under the previous loan expired, it was found advisable to appoint an engineer for each island, to have general supervision of all the work in his district and to furnish the data from which plans and specifications were prepared for new undertakings.

Some of the principal improvements under way are as follows:

HONOLULU HARBOR.

In December of last year the contract for the dredging of a new slip at the foot of Alakea street was awarded to Mr. John Walker for \$168,000. Owing to delays of various kinds work was not started until after July 1. Preliminary plans have been prepared for new wharves immediately adjacent to the naval docks. On the first wharf the plans provide for a two-story building, so as to facilitate the handling of passengers arriving on the large steamers. The Federal Government has provided for the widening of the channel entrance and the deepening of the inner harbor, but no arrangements have as yet been made for the removal of the shoal on which the light-house is at present located. This work is of the first importance, on account of the difficulty there is at the present time in turning the large steamers at this point.

ROADS AND BRIDGES.

During the past year 80.89 miles of new roads have been constructed, the most important work being the relocating of the main belt roads of the various islands. It has been the endeavor of the department to reduce the grades to a maximum of 6 per cent. Owing to the large rainfall in most of our districts it is necessary to secure good drainage. The surface of the road should be well crowned and top dressed with crushed rock. The use of oil has been found to be advantageous in preventing wash on roads during heavy rains.

SCHOOL BUILDINGS.

The normal school building has been accepted and will be occupied immediately by the department of public instruction. This is a three-story building of brick, having sixteen rooms, and a large assembly hall on the top floor. Ample arrangements have been made for fire protection to the same. In connection with the normal school there are accommodations for a manual department, one room being fitted up for the teaching of cooking and another for the teaching of carpentering.

A list of contracts for the erection of teachers' cottages and schools shows the number built, segregated for each island, to be as follows:

Islands.	Teachers' cottages.	School houses.
Oahu.....	5	11
Hawaii.....	7	15
Maui and Molokai.....	3	12
Kauai.....	1	9
Total.....	16	47

RECEIPTS.

Waterworks collections have increased and a large number of the unpaid back rates have been collected. The collection of wharfage during the past year has largely decreased. This is owing to the large amount of sugar shipped direct to New York by steamer, thus using the docks of the Oahu Railway and Land Company. The number of vessels entering this harbor for the past twelve months has been much less than for the preceding year.

The following statement shows the amounts and sources of collections by the Department for the twelve months ended June 30, 1905:

Garbage -----	\$6,845.75	Weights and measures----	\$105.65
Rents -----	38,204.27	Market -----	1,127.70
Sewerage -----	13,155.88	Realizations -----	15,728.38
Excavator -----	1,957.50		
Land sales-----	139.85	Total-----	77,264.98

Receipts, by bureaus, from July 1, 1904, to June 30, 1905.

Harbor master:		Waterworks:	
Honolulu—		Honolulu-----	\$115,668.26
Wharfage-----	\$29,270.34	Hilo-----	6,825.04
Pilotage-----	21,890.63	Laupahoehoe-----	42.35
Hilo-----	1,400.75	Wailuku and Kahului-----	4,406.80
Kahului-----	2,296.00	Lahaina-----	3,042.15
Powder magazine:		Koloa-----	190.00
Honolulu-----	1,084.50	Waimea-----	1,102.30
Hilo-----	267.59		
Kerosene warehouse:		Total-----	193,457.28
Honolulu-----	5,666.70		
Hilo-----	243.87		

FRANCHISES.

No franchises have been granted during the year ended June 30, 1905, for the construction of railroads in the islands, but it was found necessary to cancel the agreement entered into with the Kohala-Hilo Railroad Company on account of their failure to comply with the conditions stipulating the time work should be started. It was then thought that the Hilo Railway Company, under its blanket franchise, might extend its line into the Hamakua district, but as they would be entirely dependent upon the plantations for freight, it would hardly warrant their constructing the line in these districts without contracts for carrying sugar to Hilo, and a number of the plantations have already made five-year contracts with the Inter-Island Steam Navigation Company. So nothing further will be done for the time being.

LANDS.

There are certain lands which, under the organic act, this department is responsible for. During the past year, when it became necessary to dispose of any portion of these, it was thought best to transfer them to the commissioner of public lands and have them offered for sale by him at public auction. This method was adopted, as all patents are signed by the governor and commissioner of public lands, and it was deemed advisable to have all the proceedings recorded in one office. However, the revised laws passed at the last legislature require the signatures of the governor and superintendent of public works on all patents for lands under the control of this department, so that in future it becomes necessary to issue patents from this office.

Herewith is a list of the lands so treated:

Lands transferred by the public works department to the department of public lands from July 1, 1904, to June 30, 1905.

1904:

- November 11—1.82 acres of land at Tantalus, Honolulu, Oahu.
- November 11—6,731 square feet of land at Kaalawai, Honolulu.
- November 30—2.03 acres of land in Nuuanu Valley, Honolulu.

1905:

January 27—42,500 square feet of land at Kallbi, Honolulu.

January 31—10 acres of land in Kamaole, Kula, Maui.

January 31—712 acres of land in Manoa Valley, Honolulu, being known as Waaloa, Waihi-iki, and Luaalaea.

January 31—1.47 acres of land in Kuhua, Lahaina, Maui.

January 31—26.5 acres of fish pond at Weloka and adjoining Kula.

February 2—748.5 acres of land in Waionao, Palolo, Oahu.

March 25—159 square feet of land on Richard street, Honolulu, Oahu.

April 20—8,000 square feet of land on Punchbowl Slope.

In the construction of roads and various public works under this department, certain lands have been acquired, and herewith follows a list of the same:

Lands conveyed to the Territory of Hawaii from July 1, 1904, to June 30, 1905, inclusive.

Grantors.	Date.	Amount.	Location.
	1904.		
R. A. Lyman and wife	July 6	\$1.00	Convey land required for a new road in the district of Puna, island of Hawaii.
B. P. Bishop estate	July 9	1.00	Conveys land required for the extension of Pauahi street, Honolulu, island of Oahu.
Antone J. Lopez	July 12	373.40	Conveys 1,168 square feet of land required for School street extension, Honolulu, island of Oahu.
Mrs. C. K. Vivichaves and husband.	July 16	644.85	Convey 1,375 square feet of land required for the widening of King street, Honolulu, island of Oahu.
A. S. Wilcox and wife	July 12	21.00	Convey 19,566 square feet of land required for the approaches to the Kalihiwai Bridge, Kalihiwai, island of Kauai, in exchange for 8.62 acres of government land at Hanalei, island of Kauai.
James H. Boyd and wife	May 10	346.60	Convey 1,733 square feet of land required for the extension of Fort street, Honolulu, island of Oahu.
B. P. Bishop estate	July 21	650.00	Conveys 2 acres of land at Kapalama, Honolulu, island of Oahu, required for Kalihi Reservoir.
John K. Kua and wife	June 28	(b)	Convey land required for a new road at Koali, Hana, island of Maui, in exchange for the portion of the old road abandoned.
James Anahu	Aug. 13	361.00	Conveys one-fifth interest in land required for Hotel street extension, containing an area of 3,608 square feet, Honolulu, island of Oahu.
Malie Kahoopii and husband.	June 15	(b)	Convey land required for a new road at Koali, Hana, island of Maui, in exchange for the portion of the old road abandoned.
H. H. Parker	Aug. 31	280.80	Conveys 1,872 square feet of land required for Hotel street extension, Honolulu, island of Oahu.
Mrs. M. A. Humphreys and husband.	.....do.....	723.00	Convey 696 square feet of land required for the widening of Nuuanu avenue, Honolulu, island of Oahu.
Emalia K. Nui and husband.	Aug. 15	40.00	Convey 1,660 square feet of land required for the widening of Nuuanu avenue, Honolulu, island of Oahu.
Peter C. Jones (Limited) ..	Sept. 20	350.00	Convey 8,300 square feet of land required for King street, Honolulu, island of Oahu.
Fred Harrison and wife	Oct. 31	2,091.70	Convey 340 square feet of land required for the widening of Nuuanu avenue, Honolulu, island of Oahu.
James B. Castle and wife ..	.....do.....	2,450.00	Convey 44,275 square feet of land required for the extension of Fort and Kuakini streets, Honolulu, island of Oahu.
Mrs. C. F. Macfarlane and husband.	Nov. 2	101.40	Convey 780 square feet of land required for King street widening, Honolulu, island of Oahu.
Mrs. E. M. Nakuina and husband.	May 20	1.00	Convey land required for new road from Pukoo Landing, Molokai, to the main government road.
Kakani	May 23	1.00	Conveys land required for new road from Pukoo Landing, Molokai, to the main government road.
Manuel de Quadros	Dec. 15	821.80	Conveys 587 square feet of land required for the widening of King street, Honolulu, island of Oahu.
W. F. Frear and wife	Dec. 14	1,777.75	Convey 1,265 square feet of land required for the widening of King street, Honolulu, island of Oahu.

*And land.

* Land.

Lands conveyed to the Territory of Hawaii, etc.—Continued.

Grantors.	Date.	Amount.	Location.
D. M. Lonohipa et al	1904. Nov. 3	\$200.00	Convey 1,350 square feet of land in Hamakua, island of Hawaii, required for a new road.
H. Renjes and wife	Dec. 31	" 1.00	Convey to the Territory of Hawaii 12,101 square feet of land required for School street extension, Honolulu, island of Oahu, in exchange for 13,225 square feet of government land in same locality.
B. P. Bishop estate	1905. Jan. 16	1.00	Conveys 343 square feet of land required for Fort street extension, Honolulu, island of Oahu.
M. B. da Silveira and wife	Feb. 8	600.00	Convey 188 square feet of land required for the widening of Nuuanu avenue, Honolulu, island of Oahu.
Mrs. H. Fishel and husband	Mar. 2	201.50	Convey 403 square feet of land required for the widening of Beretania avenue, Honolulu, island of Oahu.
John Broad et al	do	573.90	Convey 3,826 square feet of land required for Kukui street extension, Honolulu, island of Oahu.
E. S. Cunha and wife	Mar. 13	" 1.00	Convey 2 pieces of land on Vineyard street, area 2,578 square feet, valued at 20 cents per square foot, in exchange for 2 pieces of government land situate on Maunakea street containing an area of 412 square feet, valued at \$1.25 per square foot.
Mrs. A. E. Cunha and husband	do	" 1.00	Convey 1,752 square feet of land required for the extension of Smith street, Honolulu, valued at \$1.25 per square foot, in exchange for a piece of government land in same locality containing 1,752 square feet, valued at \$1.25 per square foot.
Mele Kaholelua	Mar. 14	986.25	Conveys 6,575 square feet of land required for Kukui street extension, Honolulu, island of Oahu.
Mrs. E. S. Aseu and husband	do	180.30	Conveys 1,202 square feet of land required for Kukui street extension, Honolulu, island of Oahu.
H. Auld and wife	Mar. 21	35.00	Convey one sixty-fourth interest in land taken for the widening of Waikiki road, Honolulu, island of Oahu.
B. P. Bishop estate	Feb. 28	" 1.00	Conveys 216,201 square feet of land required for School street extension, Honolulu, island of Oahu.
Mrs. H. M. Place and husband	Apr. 12	1.00	Convey 4,005 square feet of land required for Kukui street extension, Honolulu, island of Oahu.
William Mahuka and wife	May 3	492.00	Convey 3,280 square feet of land required for Kukui street extension, Honolulu, island of Oahu.
H. A. Heen	May 19	1,012.50	Conveys 6,750 square feet of land required for Kukui street extension, Honolulu, island of Oahu.
Hawaiian Agricultural Co.	May 26	1.00	Conveys 0.48 acre of land for court-house and jail site at Pahala, Kau, island of Hawaii.
Mary Kahai	Apr. 7	1,087.00	Conveys 870 feet of land taken for the widening of Maunakea street, Honolulu, island of Oahu.
American Board of Commissioners of Foreign Missions	June 23	1,000.00	Conveys 1,958 square feet of land taken for the widening of Beretania avenue, Honolulu, island of Oahu.
Mrs. Fanny Love et al	Apr. 13	2,348.75	Convey 1,480 square feet of land taken for Pauahi street extension, Honolulu, island of Oahu.
Annie K. Akong	June 26	547.50	Conveys 1,065 square feet of land taken for the extension of Beretania avenue, Honolulu, island of Oahu.
John Broad et al	do	45.00	Convey 300 square feet of land taken on Kukui street extension, Honolulu, island of Oahu.
B. P. Bishop estate	May 25	432.25	Conveys 57,646 square feet of land required for the Kalia Reservoir, Honolulu, island of Oahu.
Eliza K. Palama	June 30	50.00	Conveys land for a 10-foot right of way through L. C. A., 4,064 feet, Kawaihae, South Kohala, island of Hawaii.

" And land.

DISPOSITION OF LOAN MONIES.

[By J. H. Howland.]

At the special session of the legislature in 1903 appropriations for the department of public works were passed amounting to \$2,397,270.75. The sum of \$2,000,000 was finally borrowed, it having been deemed advisable to limit the

bond issue to this amount. Of this sum \$1,965,680 had been expended at the expiration of the period ended June 30, 1905.

The following table will show the sums of money expended upon each of the general works of construction :

Recapitulation.

	Contracts.	Other ex- penditures.
Wharves and harbors ^a	\$348,819.31	\$22,353.83
Public buildings.....	158,103.93	44,706.35
Electric light.....	35,579.12	10,420.88
Waterworks ^a	212,940.96	147,070.28
Storm sewers.....	10,495.98	9,483.84
Sanitary sewers ^a	78,809.73	11,148.27
Educational buildings:		
Oahu.....	144,127.89	12,895.61
Hawaii.....	39,670.48	4,061.52
Maui, etc.....	79,238.29	5,761.71
Kauai.....	25,966.24	3,596.33
Roads and bridges.....	372,693.45	187,856.00
Total.....	1,506,505.38	459,174.62
Grand total.....		1,965,680.00
Cash available next period.....		34,320.00
Borrowed.....		2,000,000.00

^a Revenue producing.

Only three of the above-listed public works are directly revenue producing, viz, waterworks, wharves and harbors, and sanitary sewers. It would be of interest in a consideration of the loan moneys expended upon these three works of construction to refer to the following table, which shows the receipts as well as the expenditures made from current appropriations for maintenance and repairs for each of the last four years :

Year ending June 30—	Waterworks.		Wharves and harbors.		Sewers.	
	Receipts.	Running expenses.	Receipts.	Maintenance and repairs.	Receipts.	Maintenance and repairs.
1902.....	\$97,501.15	\$50,214.98	\$91,650.71	\$21,570.23	\$13,999.83	\$13,741.59
1903.....	102,841.85	36,316.12	70,395.52	33,855.04	12,643.98	19,413.00
1904.....	103,316.02	36,362.17	66,210.73	10,713.94	6,767.26	9,720.27
1905.....	115,668.20	38,265.62	51,160.97	9,358.63	13,155.88	16,706.79
Total.....	419,327.28	161,158.89	279,327.93	75,497.84	46,566.95	59,581.65

As will be seen from the above table, the annual receipts from the waterworks have increased from over \$97,000 in 1902 to over \$115,000 in 1905, while the expenditures have decreased from approximately \$50,000 in 1902 to approximately \$38,000 in 1905. The running expenses of the waterworks at the present time are still very high, due to the excessive cost of pumping water, which is unavoidable with the system as it is at present. The loan moneys expended for improvements in this Department have been made with the eventuality constantly in view of supplementing the pumps with a purely gravity system, which unquestionably can be developed so as to furnish an adequate, suitable economical supply.

The adjustment of the existing defective distributing system to changed conditions should receive no check, and funds appropriated for extensions and improvements must be intelligently expended within the lines of the conceived plan rather than in the haphazard patching up of a defective system. If this is done, large sums of moneys will be saved which are now expended upon running expenses. Figures show that a reservoir built in Kalihi Valley at an approximate cost of \$100,000 would pay for itself in five years with the moneys saved in operating expenses at the pumping stations. The Nuuanu Reservoir now being constructed is inadequate, as a sole supply, to the city of Honolulu,

and for extended periods of drouth the supply would need to be augmented by pumping, unless other reservoirs or supplies allowed this new reservoir to be held in reserve during the first portion of a drouth.

While the urgent demands of the situation would not seem to point to an immediate radical revision of the entire system, a thorough investigation shows up the inefficiency of that system in its present condition and certainly warrants the expenditure of the loan moneys that have already been used, as well as those that have been appropriated under the new loan bill. As was shown in previous reports, with an appropriation of \$300,000 in addition to the moneys already expended and the appropriations made at this last session of the legislature an adequate gravity supply is insured, resulting in an annual saving of over \$50,000. A large part of this estimated saving would not appear on the waterworks books, but would indirectly be saved by the taxpayers, as will be seen upon referring to a report which was previously prepared upon this subject, a copy of which is herewith presented. We contemplate, with the waterworks appropriations made available under this last loan bill, being able to complete the large reservoir at the head of the Nuuanu Valley, the effluent pipe from same down to the newly completed electric power station, to materially improve the lower, or No. 1, reservoir, and to make the necessary and important alterations and extensions in the adjustment of the distributing system. With this work completed, much the larger portion of the work of revision will have been accomplished toward the achievement of this gravity supply for Honolulu. With the additional appropriation above referred to the system may be completed, so that the saving of \$50,000 per year may be realized.

As will be seen upon referring to the receipts from "wharves and harbor," the conditions have materially changed in the last four years. The receipts are decreasing from year to year, due to the fact that the number of sailing vessels entering this port have decreased of late years to a very great extent. Many of the coal ships have been replaced by oil vessels, all of which go to the railroad wharves. A few large steamers now handle freight formerly carried by a much larger number of sailing vessels. Vessels carrying fertilizer, oil, general merchandise for the plantations, etc., all go to the railroad wharves, where the facilities permit of a more economical handling of the freight. None of the Territorial wharves to-day are suitable to accommodate the larger steamers now entering the port of Honolulu. It is therefore important to provide such accommodations as soon as possible. Out of the loan moneys already expended, the Fort street wharf has already been constructed, the brewer wharf is well under way, and the Alakea street slip will have been completed in the early part of this next year. In order to dock the large steamers which now handle the bulk of the commerce upon the Pacific, and which have displaced so many of the sailing vessels, it is absolutely necessary to build much longer slips and to construct larger wharves, with spacious shed areas.

We contemplate constructing during this present period a large wharf directly adjoining the navy wharf No. 2, and a still larger wharf between the Alakea and Kilauena street slips. In addition to the dredging of the Alakea street slip, which is now well under way, it is proposed to excavate one-half of the Kilauena street slip, thereby providing for three long berths in every way suitable to accommodate the largest steamers. All of this work, it is believed, can be accomplished with the moneys already appropriated under this new loan bill, amounting to \$300,000. When these extensive improvements are completed, the Territory will undoubtedly be able to supply all demands in the way of wharfage which the commerce upon the Pacific will be likely to require for at least the next five years. The tearing up of the old Pacific Mall wharf has made it necessary for several of the large vessels to go to the navy wharves, which lost revenue, as well as that from other large steamers and sailing vessels, would be realized by the Territory upon completion of these large slips and wharves.

The expenditures shown in the table and made from current moneys for the "maintenance and repairs to the Honolulu sewerage systems" include the cost of keeping up both the sanitary sewers and the storm drains, the first of which only are revenue producing. The figures as given, covering both systems, are therefore somewhat misleading. Even these figures do not show a fair relation between probable receipts and expenditures upon both systems, from the fact that up to within one year ago we had no law which made sewer rates a lien upon the property, and a large proportion of sewer rates therefore remained unpaid. The running expenses of the sewerage pumping station, which accounts for so large a proportion of the annual expense in the "maintenance of the sewerage systems," will, no doubt, be very materially reduced

when oil is introduced as a fuel and new electric engines are installed, as the engines which are now in use in this station are not of an economical type and are in poor condition. The necessary current appropriations have already been made, which, when expended, will result in a considerable saving in the running expenses at this station. The general appropriations for all islands made on account of the loan fund for this period did not include those necessary to make extensions to the sewerage and storm-drain systems which are so necessary in order to complete the general system as originally laid out, together with extensions that have become necessary since the plans were first prepared.

HONOLULU WATER SUPPLY.

[By J. H. Howland.]

What are the possibilities in the future development of an adequate, suitable, and economical gravity supply for the city of Honolulu?

What increase in the net revenues would we realize in such an achievement?

Would the advantages resulting from the perfection of such a system outweigh the disadvantages?

This is by no means the first time this subject of water supply has been brought up here, though it is surprising that it should have excited so little attention. After some careful consideration, together with a thorough investigation into the possibilities at the heads of these valleys, so admirably located back of Honolulu, there is no question but that with the construction of large storage reservoirs the result would be the final achievement of an ample gravity supply of excellent quality, and a system in which the cost of maintenance is reduced to a minimum.

Mr. S. G. Walker has just completed a very thorough investigation into the possibilities in the upper Nuuanu Valley, and, besides submitting a full set of plans for dam, reservoir, and pipe line down to the new electric power station, has filed reports plainly showing just what can be expected from this source. We have at the present time a consuming population of about 37,000, and the mean daily consumption is approximately 7,500,000 gallons, or a per capita consumption of about 200 gallons per twenty-four hours. The present high rate of consumption is admittedly unwarranted, and may be very materially reduced (probably below 150 gallons per capita) by a rigid house-to-house inspection, thorough search for leaks in reservoirs and street mains, together with a moderate installation of meters. Disregarding this lowering of the per capita consumption, we find from diagrams and reports submitted by Mr. Walker that the new 450,000,000-gallon reservoir in Nuuanu Valley, together with the proposed improvements to No. 1 reservoir so as to contain 50,000,000 gallons, would yield a continuous flow, with two exceptions, of at least 5,250,000 gallons per twenty-four hours throughout the last fifteen years (the period covered by the rain records), or about 71 per cent of the entire consumption.

In addition to these improvements in the Nuuanu Valley, which are already provided for, should we continue and make similar improvements in the Kalihi Valley, the next largest and next best fitted for impounding a large quantity of water, we would be able to depend on a continuous supply of about 10 per cent in excess of the present consumption, except in short periods of extraordinary droughts, which, as inferred above, happened twice in the past fifteen years. A preliminary survey of an excellent reservoir site at the very head of the Kalihi Valley is conclusive that at an estimated cost of \$100,000 we can obtain a storage capacity of approximately 275,000,000 gallons of water. To this cost add \$150,000 for the laying of a large affluent pipe down the valley and connecting it up with the general distributing system at King street, and the system is made adequate to meet the present requirements. An additional supply could be obtained from the Makiki Valley at a comparatively small cost (\$50,000), which, although of much less value than either of the Nuuanu or Kalihi sources, would serve an important function in tending to equalize the pressure in the outer or Makiki portions of the system by being so arranged that the water could be drawn from it only at such times as the pressure might be drawn down below the normal. Thus it is seen that with an expenditure of approximately \$300,000 (not thus far provided for) an adequate supply is insured.

That a remarkable saving to the Territory would be realized through the perfection of such a gravity system will be readily seen from a review of the following facts:

One of the most important provinces of a waterworks system is the extinguishing of fires. The best authorities on the subject of fire protection are unanimous in their opinion that there is no system of water supply that is in any way equal to that of a gravity supply, with an abundant pressure at the hydrants (80 pounds per square inch), connected up with street mains from 6 inches in diameter upward. Such conditions might readily be realized here in Honolulu and would certainly insure prompt action with corresponding efficiency in case of fires. From the most reliable data that could be obtained, it is safe to say that not less than \$250,000 is paid in annually as premiums on fire insurance here in Honolulu alone, and with the installation of an adequate gravity water supply, that at least 5 per cent of this amount, or \$12,500, would be saved each year by the property owners and taxpayers, who through high insurance eventually pay for their own heavy losses, the rates being primarily fixed and controlled by the amount of fire losses. The excessive pressure which we would have on our downtown mains if the water were admitted directly into the system from the reservoirs at the heads of the valleys may be modified as desired by the introduction of reducing valves where the smaller mains branch out from the larger ones.

While the present pumping plants might be used to supplement the gravity supply in times of exceptional drought (twice in the last fifteen years), or extraordinary consumption, due to large fires, practically all of the running expenses in connection with these plants could be saved. As is shown from the figures covering the expense incurred during the past twelve months, this would amount to fully \$32,000 each year. With these pumping plants kept in good repair as an auxiliary supply to that of the gravity system, we would have an ideal water supply both for domestic use and fire protection.

The government is, at the present time, running 130 arc lights, but is unable with the present power plant in Nuuanu Valley to furnish sufficient current for the remaining 70 arc lights which, together with the above, light the streets of Honolulu. Our inability to run these 70 arc lights costs the Territory \$6,000 per year. With the completion of the new electric power station, this annual expense would be saved, inasmuch as with an assumed minimum draft of 3,000,000 gallons per twenty-four hours we will be able to furnish an average of 700 actual horsepower, distributed over a period of eight hours, which amount is ample for the present demands, with a considerable margin of growth. By putting in another electrical unit, in addition to the one already provided for in this new station, the government would be able to run 400 arc lights if necessary, besides having ample power to run an electric engine at the sewage pumping station, which would result in a further saving of not less than \$250 per month, or \$3,000 annually. With the Nuuanu source alone we could not depend on a supply sufficient to develop this power, but with the additional sources made available to help out on the daily consumption we would seldom feel restricted in the use of the necessary quantity of water desired.

After making a careful canvass in the upper portions of these valleys, it is estimated that an additional revenue might be received from those at present not supplied with government water, on account of their being located at too high an elevation, a sum of not less than \$1,000 per annum.

It is evident from the above that with the achievement of an adequate gravity supply a very material increase in the net revenue would be realized, and that with an expenditure of some \$300,000 we would make an annual saving of over \$54,000, or an 18 per cent investment. Is it not a good business proposition for the government to entertain? Would a private company take it up.

With the installation of such gravity system of water supply the cost of maintenance would be reduced to a minimum, and would certainly tend to decrease the burden on those paying water rates.

That the direct advantages would outweigh the disadvantages with the perfection of such a system is unquestioned. The only disadvantages that would be experienced would be at times of exceptional drought, when the valley waters might become more or less turbid and carry in suspension particles of fresh-water algae, which grows much more readily in shallow and necessarily warmer water. Trouble from either of these sources, however, would be very infrequent, as the reservoirs would seldom be drawn down low enough to affect the quality of the water. There has been in the past a disposition to question the advisability of having to depend solely on valley waters for domestic use, and that the pump or artesian water was much the more preferable. At the request of Mr. Walker, chemical examinations were made, indicating that the water

at the valley sources is very satisfactory in quality, and unquestionably will provide a safe and suitable source of supply for the city use. These analyses indicate that the organic matter increases as the course of the water is followed from the various sources at the head of the Nuuanu Valley down to the No. 1 reservoir, which is to be expected when the surrounding facts are taken into consideration, and the appearance of the water is not improved by its flowing a mile or more in shallow, open channel.

It is certainly a subject for congratulation that in this case the possibility of animal pollution, by far the most dangerous element affecting a water supply, is by the location of the watersheds and proposed reservoirs practically eliminated. The quality of the water stored in reservoirs such as it is proposed to construct near the sources would unquestionably be far superior to that in the present reservoirs located farther down the Nuuanu Valley, which are of inferior design and construction.

Altogether, the adjustment of the existing defective system by proposed improvements along the lines suggested and which would eventually result in the achievement of an adequate, suitable, and economical gravity supply for Honolulu, is one of the most important problems in the way of public improvements that has thus far been brought up. It is to be hoped that this work, already started and undertaken, may receive no check and that it may be perfected within a reasonably short time. Should we not make what may seem at the present time extraordinary expenditures for these permanent improvements, which will be of material benefit to those living in Honolulu in future years?

PUBLIC LANDS AND THEIR ADMINISTRATION.

[By J. W. Pratt.]

In an article on "Public lands and land laws" in the governor's report for 1904 is a brief description of the divisions of public lands and how they were brought about; also a digest of the present land laws.

RECORD OF PAST YEAR'S WORK.

During the past year those in charge of the department of public lands have endeavored to dispose of unfinished business and to institute an up-to-date system in handling all land matters.

All accounts overdue have been placed in the hands of the attorney-general for collection. All land areas have been carefully checked and lists of lands revised. The various section books and maps of lands opened for settlement have been carefully checked up and lists compiled of all unoccupied lots or parcels of land. The cases of those settlers who appeared to have forfeited their holdings through noncompliance with conditions of agreements have been taken up and examined, and all agreements canceled in the cases of those who have willfully violated the law, and the land which has thus reverted to the control of the Territory has been again opened for settlement. On the other hand, the right to cancel has been waived for the time being in the cases of those who have failed to comply, but have shown that this failure was brought about by conditions beyond their control.

NEW FEATURES AND DIFFICULTIES.

A new feature of the work of those responsible for the administration of public lands in Hawaii is the cutting up of sugar lands that have been planted for years under leases by various corporations, some of which are now expiring. The opening of these lands must necessarily be proceeded with in a cautious manner. They have a market value of from \$40 to \$150 per acre, and there is therefore a great demand for them. The applicants in a large majority of cases have no means with which to keep the land under cultivation. This is no inconsiderable item, for sugar culture as conducted in this Territory requires from \$150 to \$200 outlay per acre before the crop can be matured. Thus with many of the applicants there is a prospect of seeing good cane fields lapse into jungles again, unless the capitalist meets the demand of the so-called settlers and buys them out, or takes a mortgage for the funds necessary to plant, cultivate, and harvest the crop.

With many of the small plots of land a lack of transportation facilities and a market for products other than sugar on the one side of the case, as against the fact that a ready and convenient market is at hand for all sugar cane, renders cane planting the only use the settler of such lands can put his soil to and be assured of anywhere near satisfactory results at the end of the season.

In this connection it should be understood that a "season" in the cane field means a period of from eighteen months to three years, according to the altitude of the land, and the farmer from the mainland, who has been in the habit of taking off his crops from three to five months from time of planting, is often discouraged here when he finds that he must wait from one and a half to four years for a crop of sugar cane, bananas, pineapples, coffee, or sisal.

A SIGNIFICANT FACT.

It is greatly to the credit of some of our most advanced sugar planters that they have signified their approval of the opening of lands to bona fide settlers and their willingness to assist these people by giving them employment, and in some cases by advancing the necessary funds to develop the lands taken up, provided the settlers will agree to occupy the land for a period of years and actually cultivate it.

AREA TO BE ALLOTTED.

There has been considerable complaint at the attitude taken by Territorial officials in reducing the area open for settlement to small tracts from 25 to 50 acres, according to the quality of the land; but it should be borne in mind that the average cane land requires the constant attention of one man for every 7 acres, and often the applicant who considers he has been mistreated unless he is allotted from 75 to 100 or more acres is absolutely ignorant regarding cane culture or he proposes to depend on oriental labor to cultivate it. Sometimes he does not propose to cultivate it at all—simply to get possession to sell out at the best price possible. These conditions show the difficulty of administering this department judiciously.

RECOMMENDED CHANGES IN THE ORGANIC ACT.

In connection with the statement made above, regarding the length of time necessary to take off a crop in the Tropics, attention should be called to that portion of the organic act limiting the term of a lease of agricultural land to five years.

It can be truthfully stated that there is nothing in the law which covers our Territory that is a greater hindrance in developing our lands and retarding our progress than this limit of time in which agricultural lands can be leased. Thousands of acres of what should be good agricultural land producing crops of some kind are covered by a thick jungle of weeds. Land that is under cultivation if left idle is soon taken possession of by a growth of vegetation which is unequalled elsewhere and the cost of clearing this land is often from \$20 to \$80 per acre. This expense is practically prohibitive to the prospective settler without funds, and those with means will not take such lands under a five-year lease, for at best they can get off but two crops before the lease expires and the land leaves their control. Few have sufficient means to purchase the land outright and carry themselves through until they can secure returns from their crops. Therefore much of the land lies idle, of no use to anyone. The term of leases covering the agricultural lands in these islands should be a multiple of four, and there is no question but that the law should allow leasing of all undeveloped land for a term of eight to twelve years (preferably twelve). This may appear to be a long time, but still it would be a definite time, while if the present condition continues the lands are tied up indefinitely.

Another limitation in the land law that should receive attention, with a view to altering the same, is that section which limits the quantity of land that can be sold in any one block. The Government owns many acres of barren waste lands, much of it without the slightest sign of vegetation—nothing but the rough clinkers of former lava flows. Then again there are many ancient flows where vegetation is just beginning—ferns and grasses are appearing in the crevices; in fact, from the one extreme there are various grades up to those lands that are rich and fertile.

Thus the public lands in Hawaii are classified by law as follows:

AGRICULTURAL LANDS.

1. *First class.*—Land suitable for the cultivation of fruit, coffee, sugar, or other perennial crops with or without irrigation.
2. *Second class.*—Land suitable for the cultivation of annual crops only.
3. *Third class.*—Wet lands such as kalo and rice lands.

PASTORAL LAND.

4. *First class.*—Land not in the description of agricultural land, but capable of carrying live stock the year through.
5. *Second class.*—Land capable of carrying live stock only part of the year, or otherwise inferior to first-class pastoral land.

PASTORAL AGRICULTURAL LAND.

6. Land adapted in part for pasturage and in part for cultivation.

FOREST LAND.

7. Land producing forest trees, but unsuitable for cultivation.

WASTE LAND.

8. Land not included in the other classes.

If land is sold for cash outright at public auction, the quantity to be sold in any class of land can not exceed 1,000 acres. If the sale is to be made on any other terms, such as deferred payment, then the limit is but 600 acres, and in either case there is no reference to the kind of land.

Much of the waste land could perhaps be used for sheep or fancy breeds of goats, with an outlay of capital for sowing the same with grass seeds, but no one cares to undertake this outlay on so small an area as a thousand acres. It will greatly facilitate many of the problems which confront the officials in charge of these lands if the limitations as to the quantity of land to be sold were left to the discretion of the commissioner of public lands, subject to the approval of the governor. If this suggestion, however, does not meet with the approval of Congress, then it would be better to have the limitations as to the amount that can be sold graded as to the classification provided for by law, and the following limitations would be far more suitable than those at present in existence:

Agricultural: (1) First class, limit 100 acres; (2) second class, limit 200 acres; (3) third class, limit 20 acres. Pastoral: (4) First class, limit 1,000 acres; (5) second class, limit 5,000 acres. (6) Pastoral-agricultural: Limit 500 acres. (7) Forest: To be sold only in such quantities as may be approved by board of agriculture and forestry. (8) Waste: No limit. This would facilitate the handling of the poorer classes of land.

DISPOSITIONS OF LANDS DURING THE YEAR.

OPENED FOR SETTLEMENT.

The following lands were opened for settlement:

Twenty-two lots, under homestead leases, Hanalei, Kauai. All taken.

Twenty-two lots, under right of purchase leases, Pupukea, Oahu. Sixteen taken.

Twenty-two lots under right of purchase leases, Homonu, Hawaii. Eighteen taken.

Twenty lots, under right of purchase leases, Palolo, Oahu. All taken.

Fourteen lots, under homestead leases, Palolo, Oahu. All taken.

Twenty lots, under cash freeholds, Palolo, Oahu. Fourteen taken.

At the present time the survey department is laying out roads and plotting small tracts, from 1 to 2 acres in extent, of about 1,000 acres of land within 3 miles from the post-office in Honolulu. It is hoped these small areas will be suitable for grape culture and garden truck, as well as furnishing suburban homes.

RECEIVED FROM OTHER DEPARTMENTS.

The following lands have been transferred by the department of public works to the department of public lands:

1. November 11, 1904. 1.82 acres of land at Tantalus, Honolulu, Oahu.
2. November 11, 1904. 6,731 square feet of land at Kaalawai, Honolulu.
3. November 30, 1904. 2.03 acres of land in Nuuanu Valley, Honolulu.
4. January 27, 1905. 42,500 square feet of land at Kalihi, Honolulu.
5. January 31, 1905. 10 acres of land in Kamaole, Kula, Maui.
6. January 31, 1905. 712 acres of land in Manoa Valley, Honolulu, being known as Waiala, Waihi-iki, and Luualaea.
7. January 31, 1905. 1.47 acres of land in Kuhua, Lahaina, Maui.
8. January 31, 1905. 26.5 acres of fish pond at Weloka, and adjoining Kula.
9. February 2, 1905. 748.5 acres of land in Waiomao, Palolo, Oahu.
10. March 25, 1905. 159 square feet of land on Richard street, Honolulu, Oahu.

11. April 20, 1905. 8,000 square feet of land on Punchbowl Slope.

The foregoing lands have been disposed of as follows:

Lot 1, 1.82 acres land at Tantalus. Pursuant to request of superintendent of public works, this land was advertised for sale at public auction at upset of \$1,000 per acre; it was put up at upset of \$1,820, and sold to E. H. Wodehouse for \$1,821.

Lot 2, 6,731 square feet of land at Kaalawai. Pursuant to request of superintendent of public works, this land was advertised for sale at public auction at upset of 5 cents per square foot (\$336.55), and sold to Charles F. Peterson for \$337.55.

Lot 3, 2.03 acres land in Nuuanu Valley. Pursuant to request of superintendent of public works, this land was advertised for sale at public auction at upset price of \$1,500, and sold to P. C. Jones, esq., at that figure.

Lot 4, 42,500 square feet of land at Kalihi. Pursuant to request of superintendent of public works, this land was advertised for sale at public auction at upset price of \$600, and sold to Wilhelm H. Kuhlmann at that figure.

Lots 5, 6, 7, and 8 still in hands of this department. No. 8 is held by Mrs. Frear under an old lease.

Lot 9, 748.5 acres land, Palolo, Oahu. Three hundred and ten acres of this land has been cut up into lots and taken up under R. P. and homestead leases. The balance, say, 438 acres, has been reserved, and will probably be included in Oahu Forest Reserve.

Lot 10, 159 square feet of land on Richard street, Honolulu. Pursuant to request of superintendent of public works, this land was advertised for sale at public auction at upset of \$2 per square foot (\$318), and sold to August Drier at that figure.

Lot 11, 8,000 square feet of land on Punchbowl Slope. Pursuant to request of superintendent of public works, this land was advertised for sale at public auction at upset of 7 cents per square foot (\$560), and sold to August Drier at that figure.

SUGGESTIONS TO PROSPECTIVE SETTLERS.

To insure success as cultivators of the soil, with agreeable and acceptable neighbors, the prospective settlers on the public lands of this Territory should form settlement or cooperative associations, taking up tracts of land sufficiently large to insure employment for all, and upon receiving applications from associations of this kind the land can be cut up into lots of such shape and size (within prescribed limits) as each individual member may desire, and the members of the association have first choice of lots as against outside applicants.

By cooperating the association is able to cultivate a larger area of land than the same number of individuals could hope to handle separately, and there are many other advantages in this method of acquiring lands, which so far has proven the most successful.

In connection therewith it may be of interest to furnish the following table

of lands available for such settlement, after which appear the usual tables from the lands department and transactions connected therewith:

Lands available for settlement, lease, sale, or other disposition each year, from 1905 to 1926.

[Not under lease, 400,809.65 acres.]

Expiration of lease.	Land available.	Annual rent.	Expiration of lease.	Land available.	Annual rent.
	<i>Acres.</i>			<i>Acres.</i>	
1905.....	5,528.00	\$735.00	1919.....	20,639.43	\$6,187.00
1906.....	256,762.40	17,749.20	1920.....	68,983.47	8,304.00
1907.....	224,203.43	8,446.00	1921.....	57,300.00	1,100.00
1908.....	131,598.16	8,645.12	1922.....	51,750.00	5,900.00
1909.....	26,312.60	7,859.75	1923.....	13,799.49	276.75
1910.....	5,696.08	2,146.00	1924.....	8,293.50	1,291.00
1911.....	41,334.50	2,830.00	1925.....	4,800.00	322.00
1912.....	14,100.68	3,190.50	1926.....	(a)	500.00
1913.....	109,510.02	8,922.00	1927.....	(a)	10.00
1914.....	15,398.25	1,770.00	1928.....	(a)	20.00
1915.....	1,626.46	710.00	1929.....	(a)	3,010.00
1916.....	17,399.00	5,500.00	1930.....	(a)	1,000.00
1917.....	78,300.00	8,955.00			
1918.....	165,005.50	6,081.00	Total.....	1,719,190.62	108,460.32

^a Water license.

Lots surveyed and available for settlement—Island of Hawaii.

FIRST LAND DISTRICT, PUNA AND HILO.

Map No.	Location.	Lots un-taken.	Area.	Appraised value.	Remarks.
			<i>Acres.</i>		
17	Kupahua, Puna, Hawaii.....	2	37.00	\$81.50	Mixed agricultural.
2	Kaimu Section, Puna, Hawaii	7	354.30	1,325.40	Mixed agricultural and pastoral.
32	Kaimu Makena, Puna, Hawaii	10	284.54	316.91	Do.
33	Kaimu Kalapana, Puna, Hawaii.	1	12.70	38.10	Agricultural and pastoral land.
34	Kikala-Keokea, Puna, Hawaii	11	770.75	642.75	Pastoral and waste land.
40	Keonepoko-iki.....	18	175.04	417.22	Waste and forest land.
35	Keanohana, Kehena, Keekee, and Kamali.	9	484.66	312.09	Pastoral and forest land.
16	Opihikao.....	1	104.60	-----	
3	Ponahawai, Hilo, Hawaii.....	1	98.20	491.10	Do.
13	Kaiwiki, Hilo, Hawaii.....	5	201.50	1,612.00	Agricultural land.
22	Maulua, Hilo, Hawaii.....	2	12.70	190.50	Do.
14	Kaohe, Puna, Hawaii.....	4	322.76	1,858.25	Mixed agricultural and forest.
23	Brughehelli Settlement Association.	5	1,000.00	3,000.00	First-class pastoral land.
23	Kilauea Settlement Association.	1	200.00	600.00	Do.
23	Lewis Settlement Association, Hawaii.	1	12.30	98.40	Mixed agricultural.
23	27½-mile tract, Hawaii.....	10	2,000.00	6,000.00	Do.
23	Otto Rose Settlement Association.	8	1,600.00	4,800.00	Do.
23	Olaa new tract.....	272	13,480.46	74,615.12	Do.
23	Olaa reservation.....	11	392.75	490.00	Mixed agricultural and pastoral.
22	Nanawale.....	1	3.65	21.90	Do.
2	Kamali.....	3	190.30	827.95	Do.
	Honomu, Hilo.....	4	125.36	1,730.91	Do.
	Total.....	387	21,863.57	99,460.27	

Lots surveyed and available for settlement—Island of Hawaii—Continued.

SECOND LAND DISTRICT.

Map No.	Location.	Lots un-taken.	Area.	Appraised value.
			<i>Acres.</i>	
12	Niuepa, Hamakua	2	88.47	\$792.36
26	Kaauhuhu, Hamakua	2	42.80	120.00
15	Puukapu, Waimea	18	230.08	470.84
27A	Kaapahu and Pohakaea	39	853.50	6,718.00
18	Ahualoa, Hamakua	1	20.80	156.00
10	Ahualoa, Honokaa section	1	100.00	.....
11	Pauilo, Hamakua	2	124.00	.....
37	Kaauhuhu, N. Kohala	9	71.31	.....
18	Awini, N. Kohala	2	159.40	657.00
	Total	76	1,696.36	8,908.80

THIRD LAND DISTRICT.

6	Kohanaiki, Hamanamana, and Kalaea, N. Kona	2	4.07	\$122.30
14	Kaulana section	4	132.17	278.02
17	Ninole and Wailau, Kau	5	86.11	357.18
25	Kalamakowahi	2	33.30	333.00
26	Olelomoana and Opihihali 1 and 2	3	85.70	322.70
27	Kukuipae	2	33.20	84.56
2176	Kiolakua and Kena, Kau	5	159.00	412.95
36	Papa, S. Kona	11	80.01	.....
	Kalaea and Ooma	6	737.5	229.97
	Total	38	1,351.96	2,151.28

Islands of Maui, Molokai and Lanai.

FOURTH LAND DISTRICT.

Map No.	Location.	Lots un-taken.	Area.	Appraised value.
			<i>Acres.</i>	
7	Pulehuiki and Kamehameiki	3	33.84	\$92.50
13	Waiakoa, Kula	7	123.00	482.09
23	Kamiloloa, Molokai	1	20.00	45.00
24	Hoolohua, Molokai	5	76.14	350.00
20	Nahiku, Koolau, Maui	2	59.40	68.10
20A	Nahiku, Koolau, Homestead	2	10.30	.....
9	Kahakuloa, Maui	9	786.75	1,017.00
9A	Kahakuloa, Homestead	29	3.34	358.70
1	Kaupo, Maui	8	210.87	386.82
	Total	66	1,323.64	2,800.21

Island of Oahu.

FIFTH LAND DISTRICT.

Location.	Lots un-taken.	Area.	Appraised value.
		<i>Acres.</i>	
Pupukea, Paumalu, Oahu	4	646.46	\$8,080.75
Pukele, Makai, Palolo	6	12.18	1,065.00
Hauula beach lots, Koolau	13	3.96	.....
Total	23	662.60	9,145.75

Island of Oahu—Continued.

SUMMARY.

Land district.	Number of lots.	Area.	Appraised value.
		<i>Acres.</i>	
First	387	21,863.57	\$99,460.27
Second	75	1,606.36	8,903.80
Third	38	1,351.96	2,151.28
Fourth	66	1,323.64	2,800.21
Fifth	23	602.60	9,145.75
Total	590	26,898.13	122,461.31

Receipts of the public lands department for the year ended June 30, 1905.

LAND REVENUE.

Rents:	
General leases	\$119,540.59
Right of purchase leases	7,027.80
Olaa leases	1,316.73
Puukapu leases	3.00
Kaimu leases	29.95
Interest:	
Homesteads	53.10
Special agreements	1,683.05
Cash freeholds	124.22
Olaa agreements	301.62
Office fees	358.90
Patent fees	325.00
	<hr/> \$130,763.96

LAND SALES.

Purchase right of purchase leases	3,835.93
Purchase Olaa agreements	856.35
Purchase homesteads	128.80
Purchase special agreements	10,818.50
Purchase cash freeholds	742.12
Cash sales "auction"	19,112.15
Government commutation fees	1,734.82
	<hr/> 37,228.67
Government realizations	402.10
Total	<hr/> 168,394.73

Comparative statement of receipts.

	Twelve months to June 30, 1904.	Twelve months to June 30, 1905.
RENTS.		
General leases	\$112,543.81	\$119,540.59
Right-of-purchase leases	8,230.40	7,027.80
Olaa leases	726.34	1,316.73
Puukapu leases	34.91	3.00
Kaimu leases	14.48	29.95
Miscellaneous	1,248.00	.....
Total	<hr/> 122,797.94	<hr/> 127,918.07
INTEREST.		
Homesteads	309.10	53.10
Special agreements	659.72	1,683.05
Cash freeholds	50.18	124.22
Olaa agreements	84.30	301.62
Office fees	314.80	358.90
Patent fees	195.00	325.00
Total	<hr/> 1,613.10	<hr/> 2,845.89

Comparative statement of receipts—Continued.

	Twelve months to June 30, 1904.	Twelve months to June 30, 1905.
LAND SALES.		
Right-of-purchase leases.....	\$14,183.99	\$3,836.98
Special agreements.....	2,735.20	10,818.50
Homesteads.....	948.17	128.80
Cash freeholds.....	652.48	742.12
Olaa agreements.....	405.33	865.95
Kaimu leases.....	29.35	
Government commutations.....		1,734.82
Cash sales (auction).....	60.00	19,112.15
Government realizations.....		402.10
Total.....	18,962.42	37,690.77
Grand total.....	143,373.46	168,804.78

Statement of expenditures for the year ended June 30, 1905.

Item.	Appropriation.	Drawn.	Balance.
Salary of—			
Commissioner.....	\$3,800.00	\$3,800.00	.....
Secretary and subagent fifth land district.....	1,800.00	1,800.00	.....
Patent clerk.....	1,200.00	1,200.00	.....
Subagent first land district.....	1,200.00	1,200.00	.....
Subagent third land district.....	480.00	480.00	.....
Subagent fourth land district.....	600.00	600.00	.....
Ranger first land district.....	600.00	600.00	.....
Ranger second land district.....	280.00	280.00	\$80.00
Incidentals and general expenses.....	3,100.00	3,098.68	1.32
Total.....	12,940.00	12,858.68	81.32

General expenses, public lands act 3, 1905.

Item.	Appropriation.	Drawn.	Balance.
Incidentals, land office.....	\$500.00	\$497.67	\$2.33
To reimburse—			
T. Awana for 36 acres purchased under erroneous patent to Mrs. Kahanaunui in 1888.....	201.60	201.60	.....
Lam Wo Sing for rent paid March 9, 1903, under general lease No. 551, now declared illegal.....	272.50	272.50	.....
A. M. McBryde.....	12.00	12.00	.....
C. B. Makee.....	37.00	37.00	.....
W. J. Sheldon.....	16.00	16.00	.....
Total.....	1,059.10	1,086.77	2.33

Land patents issued during the year ended June 30, 1905.

Patent No.	Date issued.	Patentee.	Area.	Location.	Consideration.	Remarks.
4828	July 1	M. Machado.....	23	Ponahawai, Hilo, Hawaii.	\$255.00	Cash freeholds.
4829	....do....	Antone P. Martinez.....	7.92	Waipunalei, Hilo, Hawaii.	80.65	Right-of-purchase lease.
4830	....do....	Antone P. Soares.....	11.3	Kaauhuhu, N. Kohala, Hawaii.	34.00	Time payment.
4831	J 15	A. S. Wilcox.....	8.62	Hanalei, Halelea, Kauai.	1.00	Land exchange.
4832	July 19	A. Hocking.....	a2,624	Makiki, Honolulu, Kona, Oahu.	131.20	Land purchase.
4833	Aug. 1	Teresa Feries.....	25.48	Kaiwiki, Hilo, Hawaii.	203.84	Right-of-purchase lease.

* Square feet.

Land patents issued during the year ended June 30, 1905—Continued.

Patent No.	Date issued.	Patentee.	Area.	Location.	Consideration.	Remarks.
4834	1904. Sept. 3	Kahoochanohano	<i>Acres.</i> 16.91	Puukapu, Waimea, S. Kohala, Hawaii.	42.02	Right-of-purchase lease.
4835	....do	Joao de Castello	33.95	Waikaumalo, Manua, Hilo, Hawaii.	500.25	Do.
4836	....do	B. F. Kuhns	13.90	Kaiwika, Hilo, Hawaii.	114.72	Do.
4837	....do	K. W. S. Kaehamoku	9.7	Olaa Puna, Hawaii	24.25	Cash free-holds.
4838	....do	B. K. Pea	10	Kaimu Kiula, Puna, Hawaii.	25.00	Do.
4839	Sept. 29	D. H. Hitchcock	194.54	Olaa, Puna, Hawaii	767.24	Olaa reservation.
4840	....do	J. Keahillihau	8.88	....do	22.00	Cash free-holds.
4841	....do	Mrs. Kapalu Keahi	8.81	Kaauhuhu, N. Kohala, Hawaii.	27.00	Time payment.
4842	....do	Nalu (w.)	52.25	Kalaooa, 3 N. Kona, Hawaii.	25.12	Homesteads.
4843	....do	Henry J. Isles	20.11	Ninole Wailau Kau, Hawaii.	201.10	Do.
4844	....do	Julio M. Machado	18.38	....do	91.90	Do.
4845	Oct. 6	A. S. Wilcox	984	Puupehu, Hanalei, Kauai.	9,100.00	Cash purchase.
4846	....do	W. F. Allen	879	....do	4,050.00	Do.
4847	Oct. 31	Jas. D. Dole	61	Wahiawa, Waialua, Oahu.	4,000.00	Time payment.
4848	....do	Kuahineliili	9.5	Olaa, Puna, Hawaii.	29.75	Cash free-holds.
4849	....do	Maooa (w.)	11.55	....do	28.87	Do.
4850	....do	Waikuaala (w.)	8.5	....do	21.25	Do.
4851	....do	Mariano Raposa	24.44	Kaiwika, Hilo, Hawaii.	195.52	Right-of-purchase lease.
4852	....do	Joao Fernandes	17.7	Ponohawaii, Hilo, Hawaii.	141.60	Do.
4853	Nov. 15	S. Kahananui	4	Kohanaiki, N. Kona, Hawaii.	120.00	Homesteads.
4854	....do	Manl. d'Almeida	34.24	Kaiwika, Hilo, Hawaii.	273.92	Right of purchase.
4855	....do	James B. Castle	282	Kaipapau, Koolauloa, Oahu	1,000.00	Cash purchase.
4856	....do	John Hind	3.91	Puako, S. Kohala, Hawaii.	196.00	Do.
4857	Dec. 6	W. B. McCormick	77	Wahiawa, Waialua, Oahu.	231.00	Right-of-purchase lease.
4858	....do	J. M. Hind	20.02	Puuanahulu, N. Kona, Hawaii.	50.00	Time payment.
4859	....do	S. B. Dole	32	....do	75.00	Do.
4860	....do	S. Pali	10.20	Olaa, Puna, Hawaii.	25.36	Cash free-holds.
4861	1905. Mar. 11	H. Renjes	a13,225	Hauhaikoi, Kona, Hawaii.	1.00	Land exchange.
4862	Jan. 18	Robt. Hind	25.38	Puwaaawaa, N. Kona, Hawaii.	507.60	Cash purchase.
4863	....do	Chas. F. Peterson	a6,731	Kaulawai, Kona, Oahu.	337.55	Do.
4864	....do	E. H. Woodhouse	1.82	Tantalus, Honolulu, Kona, Oahu.	1,821.00	Do.
4865	....do	Peter C. Jones, Limited	2.03	Nuuanu Valley, Honolulu, Oahu.	1,500.00	Do.
4866	....do	Hannah Awana	92.46	Keanae, Koolau, Maui.	924.60	Right-of-purchase lease.
4867	Mar. 11	E. S. Cunha	a276	Maunakea street, Honolulu, Kona, Oahu.	1.00	Land exchange.
4868	....do	Mrs. Angela E. Cunha	a1,752	Honolulu, Kona, Oahu.	1.00	Do.
4869	Feb. 14	Mrs. Kawai Naiheauhau	12.58	Puukapu, S. Kohala, Hawaii.	31.45	Right-of-purchase lease.
4870	....do	John Crowley	14.35	....do	71.75	Do.
4871	....do	Rose Kaopua	12.31	....do	40.22	Do.
4872	....do	Jose Marques	19.42	Ahualoa, Hamakua, Hawaii.	145.65	Homesteads.
4873	....do	Lino de Oliveira	16.90	....do	126.75	Do.
4874	....do	Mrs. Mary Hanuna	108.25	Nahiku, Koolau, Maui.	940.00	Time payment.
4875	Mar. 17	Puaa	10.65	Olaa, Puna, Hawaii	26.63	Cash free-holds.

* Square feet.

Land patents issued during the year ended June 30, 1905—Continued.

Patent No.	Date issued.	Patentee.	Area.	Location.	Consideration.	Remarks.
	1905.		<i>Acres.</i>			
4876	Mar. 17	M. J. Soares	19.71	Nanawale, Puna, Hawaii.	835.00	Time payment.
4877	....do	Ioela	10.10	Olaa, Puna, Hawaii	25.25	Cash freeholds.
4878	....do	William Campbell	19.47	Puukaku Waiamea, S. Kohala, Hawaii.	48.70	Right-of-purchase lease.
4879	....do	Antonio F. Jil	19.11	Kahuku, Hilo, Hawaii.	95.55	Do.
4880	....do	Manuel Cabrinha	20.19	do	100.95	Do.
4881	....do	Kaol (W.)	8.25	Olaa, Puna, Hawaii	20.65	Cash freeholds.
4882	....do	S. B. Nui	6.32	Waipunalei, Hilo, Hawaii.	73.80	Homesteads.
4883	Mar. 25	W. H. Kuhlmann	42.500	Niau Kalihi, Kona, Oahu.	600.00	Cash purchase.
4884	....do	Aola Ke	14.34	Ninole and Wailau, Kau, Hawaii.	71.70	Homesteads.
4885	June 19	August Drier	159	Richards street, Kona, Oahu.	318.00	Cash purchase.
4886	....do	....do	28,000	Punchbowl Slope, Honolulu, Kona, Oahu.	560.00	Do.
4887	....do	Mrs. Lucy E. Jakins	67.50	Waikauamalo, Hilo, Hawaii.	4,200.00	Time payment.
4888	....do	J. W. Koakulana	9.46	Olaa, Puna, Hawaii	19.80	Olaa reservation.
4889	....do	Mary K. Nailima	18.36	do	110.16	Do.
4890	....do	Kawai	18.5	do	111.00	Do.
4891	....do	J. W. Kahoiwai	12.24	Nanawale Puna, Hawaii.	73.44	Homesteads.
4892	....do	R. H. Atkins	38.26	Kaauhuhu, N. Kohala, Hawaii.	115.00	Time payment.
4893	....do	Thome de Aguiar	18.3	Kaapahu, Hama-kua, Hawaii.	137.25	Homesteads.
4894	....do	Antone Andrade	17.32	Ninole and Wailau, Kau, Hawaii.	121.25	Do.
4895	....do	Kuabara Jutaro	48.45	Nahiku, Koolau, Maui.	405.00	Time payment.
Total			3,606.57		33,613.26	

^aSquare feet.*Land exchanges.*

District.	No.	Area.
First land district		<i>Acres.</i>
Second land district		(a)
Third land district		(a)
Fourth land district		(a)
Fifth land district	3	0.34
Sixth land district	1	8.62
Total	4	8.96

^aNo exchange.

SUMMARY, NOT INCLUDING EXCHANGES.

	Area.	Consideration.	Average per acre.
	<i>Acres.</i>		
Right of purchase lease	442.01	\$3,105.74	\$7.02
Homesteads	199.58	1,188.96	5.95
Time payment	415.30	10,681.00	25.71
Cash freehold	120.34	504.01	4.18
Cash purchase	2,179.52	20,121.35	9.23
Olaa reservation	240.86	1,008.20	4.18
Total	3,597.61	36,606.26	10.17

Lands taken up under general provisions of land act, 1895.

[Other than cash sales and Olaa purchases under special conditions of Part IX.]

Land districts.	Right of purchase lease.			Cash freeholds.			Special agreement.			Homesteads.	
	No.	Acres.	Value.	No.	Acres.	Value.	No.	Acres.	Value.	No.	Acres.
1. Hilo and Puna ..	4	80.80	\$835.00	11	113.19	\$282.97	3	75.34	\$904.50	-----	-----
2. Hamakua and Kohala ..	10	290.22	3,100.88	-----	-----	-----	2	20.18	1,290.00	2	10.80
3. Kona and Kau ..	5	151.18	470.30	-----	-----	-----	-----	-----	-----	10	197.86
4. Maui, Molokai, etc.	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
5. Oahu ..	27	1,335.72	15,936.00	-----	-----	-----	-----	-----	-----	1	.58
6. Kauai ..	-----	-----	-----	-----	-----	-----	-----	-----	-----	23	89.77
Total	46	1,857.92	20,342.18	11	113.19	282.97	5	95.52	2,254.50	36	299.01

SUMMARY.

	No.	Acres.	Value.
Right of purchase leases	46	1,857.92	\$20,342.18
Cash freeholds	11	113.19	282.97
Special agreements	5	95.52	2,254.50
Homestead leases	36	299.01	-----
Total	98	2,365.64	22,879.65

Comparative statement of lands taken up under general provisions of land act, 1895.

	No.	Right of purchase leases.	No.	Cash freeholds.	No.	Special agreement.	No.	Homestead leases.	Total area.	Total value.
		Acres.		Acres.		Acres.		Acres.	Acres.	
Twelve months to June 30, 1904	75	5,483.58	6	817.46	1	360.00	23	164.24	6,825.28	\$27,795.17
Twelve months to June 30, 1905	46	1,857.92	11	113.19	5	95.52	36	299.01	2,365.64	22,879.65

Cash sales—(Auction).

Location.	Area.	Purchase price.
	Acres.	
Makiki, Honolulu, Oahu	0.75	\$181.20
Lot 1, Puupehu, Hanalei, Kauai ..	984	9,100.00
Lot 2, Puupehu, Hanalei, Kauai ..	879	4,050.00
Kaipapau, Kooloulou, Oahu ..	282	1,000.00
Puako, South Kohala, Hawaii ..	3.91	196.00
Puuwaawaa, North Kona, Hawaii ..	25.38	507.60
Kaalawai, Kona, Oahu ..	.15	337.55
Tantalus, Honolulu, Oahu ..	1.82	1,821.00
Nuanuu Valley, Honolulu, Oahu ..	2.03	1,500.00
Niau, Kalihi, Kona, Oahu ..	.97	600.00
Richard street, Honolulu, Kona, Oahu ..	.03	318.00
Punchbowl slope, Honolulu, Kona, Oahu ..	.18	560.00
Total	2,179.52	20,121.35

SUMMARY.

	Area.	Consideration.	Average per acre.
Right of purchase leases.....	<i>Acres.</i> 442.01	\$3,105.74	\$7.02
Homesteads.....	199.58	1,188.96	5.95
Land exchange.....	8.96	4.00	
Time payment.....	415.30	10,681.00	25.71
Cash freehold.....	120.34	504.01	4.18
Cash purchase.....	2,179.52	20,121.85	9.23
Olaa reservation.....	240.86	1,008.20	4.18
Total.....	3,606.57	36,013.26	10.15

Comparative statement of summary.

	No. of patents.	Right of purchase leases.	Homesteads.	Land exchange.	Time payment.	Cash freeholds.	Cash purchase.	Olaa reservation.	Total.	Total consideration.	Average per acre.
	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>		
12 months to June, 1904.....	96	1,443.54	243.86	7,581.40	253.53	177.03		86.08	9,785.44	\$17,839.86	\$18.23
12 months to June, 1905.....	68	442.01	199.58	8.96	415.30	120.34	2,179.52	240.86	3,606.57	36,013.26	10.15

General leases issued during the year ended June 30, 1905.

Date of lease.	Name of lessee.	Location.	Class of land.	Area.	Term of lease.	Annual rent.	Lease to commence from—
				<i>Acres.</i>	<i>Years.</i>		
1904.							
July 20	W. F., H. G., and M. E. Dillingham.	Mokuleia, Wai- alua, Oahu.	Grazing.....	203.00	21	\$56.00	July 25, 1904
Dec. 12	Pepeekeo Sugar Co.	Kulaimano, Hilo, Hawaii.	Agricultural.	347.00	5	2,200.00	Dec. 27, 1904
1905.							
Jan. 10	J. G. Henriques and F. Gomes.	Honuaula, N. Kona, Hawaii.	Grazing.....	3,044.00	21	610.00	July 29, 1905
Jan. 21	A. M. Brown	Kaohē, Hamakua, Hawaii.	.....do.....	18,000.00	21	4,550.00	Sept. 10, 1905
Apr. 17	Onomea Sugar Co.	Kaieie, Hilo, Hawaii.	Agricultural, pastoral, and waste.	252.00	5	1,050.00	July 1, 1905
June 9	Haleakala Ranch Co.	Nakula, Kaupa, Maui.	Grazing.....	1,075.00	21	50.00	Sept. 1, 1905
June 13	F. Gouveia, Carl James, and Hy. Ontai.	Opihihale, S. Kona, Hawaii.	.....do.....	2,400.00	21	272.00	June 9, 1905
June 26	Hawaiian Agricultural Co.	Kaalaala, Kau, Hawaii.	Agricultural, pastoral, and waste.	224.00	5	470.00	June 15, 1905
Do.....	do.....	Moaula, Kau, Hawaii.	.....do.....	467.00	5	900.00	June 15, 1905
Do.....	do.....	Makaka, Kau, Hawaii.	.....do.....	80.45	4	255.00	May 1, 1905
Total.....				26,062.45		10,413.00	

SUMMARY.

General leases:		
Number.....		10
Area.....		26,062.45
Annual rental.....		\$10,413.00

Land patents issued on land commission awards during the year ended June 30, 1905.

Patent No.	Area.	Patentee.	Location.
8166.....	0.93 acre.....	Poki.....	Kuhimana, Kapalama, Oahu.
8167.....	19.834 acres.....	Kamaikaaloa.....	Kaliainui, Kula, Maui.
8168.....	150.49 acres.....	Paulo Kanoa.....	Manana, Ewa, Oahu.
8169.....	253 fathoms 14 feet.....	Louis Gravier.....	Kapuukolo, Honolulu, Oahu.
8170.....	12,524 square feet.....	Kaunuohua for W. L. Moehonua.....	Kalihi, Kona, Oahu.
8171.....	8,435 square feet.....	M. Kekauonohi.....	Queen street, Kona, Oahu.
8172.....	4,620 acres.....	Keoni Ana.....	Kukuau, first Hilo, Hawaii.
8173.....	8,000 acres.....	W. C. Lunailo.....	Kalihiwai, Halelea, Kauai.

JUDICIARY DEPARTMENT.

[By W. F. Frear.]

The chief justice and associate justices of the supreme court and those of the circuit judges who had received recess appointments in June, 1904, were reappointed for full terms by the President, by and with the advice and consent of the Senate, on December 12, 1904. Mr. Justice Hatch, of the supreme court, resigned on January 31, 1905, owing to ill health, and Arthur A. Wilder, of the Honolulu bar, was appointed in his place. The term of Second Judge Gear, of the first circuit court, expired on March 1, 1905, and Judge Alexander Lindsay, then district magistrate of Honolulu, was appointed to succeed him. Very few changes have taken place among the district magistrates, whose appointment, it may be stated in passing, was transferred by the last legislature from the governor to the chief justice.

SUPREME COURT.

About two years ago the supreme court calendar gained somewhat upon the court, but during the last year a vigorous effort was made to catch up with the calendar, with the result that that object was accomplished last June. There were 149 cases disposed of during the October term, 1904, the sessions of which continued until the early part of June, 1905. Volume 16 of the Hawaiian reports, covering the decisions rendered during that period, contains 859 pages. A volume of these reports has been published yearly for several years. A decade ago it took from two to three years to fill a volume. The work of the court was expedited somewhat, among other things, by the adoption of new rules of court last September designed to facilitate the work of the court, among which mention may be made of those providing for regular monthly sessions of the court, the specification of a definite number of cases to be heard at each session, the requirement of briefs before instead of after oral argument, the limitation of time for argument, condensation in bills of exceptions, and the prevention of unnecessary delays in the presentation of cases.

It will be borne in mind that the courts of Hawaii, as provided for originally in the organic act, corresponded with the courts of the States rather than with those in the other Territories. For instance, there is, entirely distinct from the Territorial courts proper, a United States district court, which has also the jurisdiction of a United States circuit court. The Territorial courts proper, consisting of a supreme court, 5 circuit courts, and 29 district courts, have the jurisdiction given to similar courts in the various States. Cases could be taken from the Territorial supreme court, as from the State supreme courts, only to the Federal supreme court only on writ of error and only when Federal questions were involved. This seems to have been the general scheme originally intended (see 187 U. S., 309; 183 U. S., 545; 108 Fed., 113; 13 Haw., 174), but at the close of the last Congress a proviso was added to section 86 of the organic act by way of amendment to an act then before Congress (33 Stats., 1035) to the effect that writs of error and appeals may be taken from the supreme court of the Territory to the Federal supreme court in all cases in which the amount involved, exclusive of costs, exceeds \$5,000.

There has been much discussion in the Territory as to the advisability of this provision on account of the expense and delay that necessarily results from an

appeal to the Federal Supreme Court, owing to the distance these islands are situated from the national capital. One of the principal objects which it is believed was intended to be accomplished by this provision was to enable a citizen of one of the States or other Territories or a foreign country, involved in litigation with a citizen of this Territory, to take his case to the Federal courts—an object the desirability of which probably no one would question. But it is suggested that this object might better be effected here, where the courts are organized on the lines of the Federal and State courts, in the same way in which it is effected in the several States in cases of diverse citizenship, that is, by removal of causes from the Territorial courts of original jurisdiction to the United States district court rather than by permitting every case involving more than \$5,000, even though not involving a Federal question or diverse citizenship, to be taken to Washington. This perhaps was originally intended by section 86 of the organic act, but if so, such intention has been supposed to be inadequately expressed. (See 1 Estee, 12.) In this view, cases involving diverse citizenship as well as those involving Federal questions could be taken to the Federal courts by removal from the Territorial courts of original jurisdiction; those involving Federal questions could also be taken up from the Territorial supreme court by writ of error, and those of a purely local nature could be determined finally in the Territorial courts as in the corresponding State courts.

Another question relating to the supreme court that has been discussed to some extent during the last few years has been as to whether the number of the supreme court justices should be increased from three to five. One reason which has been urged in support of this, namely, that the number of cases brought to this court has increased to such an extent as to require an increase in the membership of the court in order to enable it to keep up with its work has not as great force as formerly. Other reasons, however, might be deemed sufficient to justify such an increase in the number of justices. A great many very important cases, some involving large amounts, come before this court, and a decision by a bench of five would naturally be more satisfactory than one by a bench of three, especially in the event of a dissenting opinion by one member of the court. An increase in the number of justices would also in some degree meet the argument for allowing appeals to the Federal Supreme Court in cases in which Federal questions are not involved, or, if it is deemed best to allow such appeals, it would tend to reduce the number of cases in which such appeals would be taken. The supreme court of the Territory of Oklahoma has a membership of seven, and the supreme courts of Arizona and New Mexico, in each of which there is probably less litigation than in Hawaii, consist of five members.

CIRCUIT COURTS.

The circuit courts in general are pretty well up-to-date in their work. The circuit court of the first circuit, which a few years ago was very far behind in this respect, has made great progress in catching up with its calendar.

Some question has been raised as to the jurisdiction of the circuit courts in naturalization matters. This arises from the language of section 2165 of the Revised Statutes, which confers such jurisdiction upon the "district" courts of the Territories. The question is whether the circuit courts of the Territory of Hawaii are "district" courts within the meaning of that statute. Since the organization of the Territory these circuit courts have naturalized nearly 1,000 persons. This, of course, is exclusive of those naturalized by the supreme court and the Federal court in the Territory, the jurisdiction of which is unquestioned. It is very desirable that the circuit courts should have such jurisdiction for the convenience of persons desiring to be naturalized who live on islands or in circuits in which the supreme court and the Federal court do not sit. It might be well to amend section 100 of the organic act of the Territory so as to ratify all naturalizations hitherto granted by the circuit courts and at the same time place their jurisdiction beyond question.

MISCELLANEOUS.

Much has been accomplished during the last few years in remedying defects in the laws relating to the organization, administration, and procedure of the courts and in conforming them to the new conditions brought about by annexation. This has been done partly through the general revision of the laws which was enacted by the last legislature and partly by the enactment of many par-

ticular laws by the last two legislatures. The establishment of county government by the last legislature did not materially affect the judiciary department.

The supreme court library, to which free access is had also by the circuit court of the first circuit, the United States district court, and members of the bar, contains nearly 8,000 volumes. Of these over 900 have been added during the last two years. A new catalogue of this library is now nearly completed. Each of the circuit courts in the circuits other than the first has a small but well-selected and growing library containing from 400 to 700 volumes.

In several of the circuits other than the first there is much need of new court-houses, which, it is hoped, will be erected in the near future, as appropriations have already been made for them.

STATISTICS.

The statistics of the judicial work of the courts are made up by the calendar years. The following will give a general idea of the number and character of the cases, both civil and criminal, and the nationality of the convicted in criminal cases. There are some duplications owing to appeals from one court to another, and in some instances to a third court.

SUMMARY.

	1903.	1904.
Civil cases.....	2,907	2,947
Criminal cases (persons charged).....	10,059	10,048
Total.....	12,966	12,995

Cases in the—	1903.	1904.
Supreme court.....	99	149
Circuit courts.....	1,385	1,685
District courts.....	11,424	10,895
Naturalizations.....	58	290
Total.....	12,966	12,995

Nationality.	Convicted.		Drunkenness.		Gambling.	
	1903.	1904.	1903.	1904.	1903.	1904.
Chinese.....	1,331	1,555	4	7	904	1,201
Japanese.....	2,083	2,101	154	132	862	951
Portuguese.....	454	427	91	89	101	10
Hawaiians.....	1,527	1,562	573	484	82	287
Others.....	1,313	1,242	615	476	108	119
Total convictions.....	6,708	6,887	1,437	1,188	2,057	2,568
Total arrests.....			3,950	2,785	8,207	3,750

Liquor selling and distilling.		1903.	1904.
Total convictions.....		138	121
Total arrests.....		234	241

	Offenses.											
	Against the peace.		Against chastity.		Against property.		Homicides.				Miscellaneous.	
							Man-slaughter.		Murder.			
	1903.	1904.	1903.	1904.	1903.	1904.	1903.	1904.	1903.	1904.		
Arrests	1,472	1,499	347	295	594	771	5	4	8	14	2,664	2,219
Convictions	831	859	229	186	304	384	4	1	4	4	1,704	1,563

SUMMARY—continued.

Offenses.	Summary of arrests.		Summary of convictions.	
	1903.	1904.	1903.	1904.
Drunkenness.....	1,517	1,268	1,437	1,188
Liquor selling and distilling.....	234	241	138	121
Gambling.....	3,207	3,750	2,057	2,568
Offenses against chastity.....	347	293	229	184
Offenses against property.....	594	771	304	384
Offenses against the peace.....	1,472	1,499	831	868
Homicides.....	13	18	8	5
Miscellaneous.....	2,675	2,308	1,704	1,563
Total.....	10,069	10,048	6,708	6,881

POLICE.

[By William Henry.]

Police matters of the Territory were under the direction of Arthur M. Brown, as high sheriff, from July 1, 1904, to October 21, 1904, and of William Henry from that date until June 30, 1905.

An act was passed by the legislature April 14, 1905, which created counties within the Territory of Hawaii, provided for the government thereof, made the sheriffs of the respective counties elective, and vested them with the powers, privileges, and authority formerly exercised and performed by the high sheriff of the Territory, excepting the care, custody, and control of Territorial jails, houses of correction and penitentiary, and the care and custody of the prisoners confined therein.

This act went into effect July 1, 1905, an election taking place June 20, 1905. A. M. Brown was chosen sheriff for the county of Oahu, William H. Rice, Jr., for the county of Kauai, William Keolanui for the county of Hawaii, and William E. Saffery for the county of Maui.

The number of regularly paid police throughout the Territory has averaged for the annual period 220 per month, including deputy sheriffs and captains of police, and the wages paid have averaged \$9,451.50 per month. Of the total number of policemen employed all but 43 were Hawaiians.

Japanese and Porto Ricans lead in the commission of the more serious crimes, convictions among Chinese being largely for gambling, which also appears to have increased somewhat among the Japanese. Drink is largely responsible for the commission of crime by Hawaiians, and to the former existence of the so-called social clubs, which were patronized almost exclusively by Hawaiians, can be traced much of the origin of reckless conduct among the natives.

One of the most important events during the year was the strike at Lahaina plantation, on the island of Maui, which occurred on May 20, 1905. Seventeen hundred Japanese refused to work and became riotous by breaking the windows and doors of the "sugar mill" and gathering together in the night, striking terror to the private residents of the town of Lahaina, and making an attack on the house of one of their own countrymen.

The police, officered by Sheriff Baldwin, of Maui, assisted by the militia of that island, endeavored to disperse the mob, which resulted in the death of one Japanese laborer and the wounding of two more.

Word was received in Honolulu by wireless of the critical condition, and a force of 150 men, consisting of the militia, under Captain Johnson, and the police, under Captain Parker and myself, went to Maui, accompanied by two attaches of the Japanese consulate. The rioters were found in a sulky mood, no doubt enhanced somewhat by the shooting of one of their number.

After five days' continuous work amongst them their grievances were adjusted, saving the plantation the loss of \$20,000 in sugar cane, which lay cut down in the field previous to the strike.

The erection of a new jail, whereby misdemeanor prisoners can be segregated from felons, will have a wholesome effect on our prison population in the future.

The advancement made by the last legislature in passing a parole law for

prisoners is in line with similar action on the part of several of the States on the mainland, and will no doubt have a beneficial effect, both for the prisoners and for society in general.

The necessity of adopting a rule for the absolute abstinence from intoxicants during parole has been forcibly brought to the attention of the board of prison inspectors by the fact that 80 per cent of the prisoners in the penitentiary attribute their downfall directly or indirectly to the use of alcohol.

The highest number of prisoners in Oahu prison at any given time during the fiscal year was reached on December 14, 1904, there being on that day 351, and the lowest number was on June 25, 1905, as 273.

The percentages of nationalities were as follows:

Hawallian males.....	25.31	Chinese males.....	15.00
Hawallian females.....	2.58	Chinese females.....	.55
Japanese males.....	18.38	Other nationalities, males.....	34.22
Japanese females.....	1.11	Other nationalities, females.....	2.85

The total number of days' imprisonment is shown and classified as follows: For criminal offenses, 70,271; misdemeanor offenses, 26,274; committed offenses, 16,072; total imprisonment at Oahu prison, 112,617.

The total imprisonment of prisoners reduced will show the daily average to have been: For criminals, 193; misdemeanors, 72; committed, 44; making an average daily total of 309 prisoners at the Oahu prison.

Classification of the daily incarceration will show that 62.46 per cent were criminals; 23.30 per cent were misdemeanors, and 14.24 per cent were committed. The average sick was 13.

The labor performed by convicted prisoners for the fiscal year was: On roads and bridges, 36,777 days; Oahu prison male servants and manufacturers, 26,818 days; performed by women in the manufacturing of hats and clothing, 4,293 days; police station servants, 2,555 days; total, 70,443 days.

The total number of days' imprisonment of convicted prisoners is shown in the foregoing part of this report to have been 96,545 days, which leaves unaccounted 26,102 days. The balance of time is made up as follows: At rest on Sundays, rainy days, and holidays, 19,833 days; days of sickness, 4,869 days; days of entry into prison, 811 days; dark-cell punishment, 180 days; under death sentence, 409 days; total, 26,102 days.

Receipts of fines and costs amounted to \$945.55. In addition to this the receipts for the support of the United States prisoners amounted to \$7,133.50. The full expenditures, inclusive of all salaries, throughout the fiscal year is shown as follows: Support of prisoners, \$37,284.71; pay of Oahu prison guards and lunas, \$26,519.08; total, \$63,803.79.

Having shown the total imprisonment at the Oahu prison to have been 112,617 days and the total net cost for the care and guarding of prisoners throughout the fiscal year to have been \$63,803.79, the actual cost per day was 56 cents per prisoner.

FORESTRY.

[By Ralph S. Hosmer.]

The essential features of the forestry work now being conducted in the Territory of Hawaii are the creation of forest reserves and the planting of waste and barren land with trees of economic value.

Forest reserves are established with the main object of protecting the watersheds of streams important for irrigation. For this purpose the Hawaiian forest is admirably adapted, for with its dense mass of luxuriant undergrowth it makes a cover which absorbs a large portion of the heavy precipitation, retards the run-off on the steep slopes, and equalizes the flow in the streams which lower down supply the irrigation ditches.

The forest work of the Territory is performed by the division of forestry of the board of commissioners of agriculture and forestry, an unpaid board appointed by the governor and constituting, with its several divisions, the Territorial department of agriculture. Under the terms of the law creating the board the superintendent of forestry must be a professional forester of experience. To him is intrusted the administration and execution of all matters pertaining to forestry within the Territory.

During the past year the energies of the division of forestry have been largely directed toward the creation of forest reserves on the several islands.

Much work of a preliminary nature has been done in the way of examining lands and preparing reports, which in the coming months will lead to action of far-reaching importance. Two tracts of forest land on the islands of Oahu and Hawaii have been set apart as forest reserves by proclamation by Governor Carter. These reserves comprise, respectively, 913 and 13,940 acres. Pending on June 30, and proclaimed a reserve by Acting Governor Atkinson on July 24, 1905, was a tract of 110,000 acres in the district of Hilo, island of Hawaii. Other large projects on Maui and Kauai, embracing, respectively, 43,000 and 37,500 acres of forest land, are so well under way that final action will be taken on them during July or August.

In creating forest reserves it is the custom of the board of agriculture and forestry to recommend a definite area, which it believes it is to the best interest of the Territory to maintain under forest cover. The governor in declaring this area a reserve sets apart as compartments thereof the government lands within its boundaries not then under lease or on which the existing leases have less than two years to run. The individuals or corporations owning or leasing land within the reserve are then requested to cooperate with the government, under the law, in carrying out the objects for which the reserve is set apart. This they are usually willing to do, because the establishment of the reserve is almost directly to their advantage in that they reap the most direct and immediate benefits from the stream protection afforded by the forest cover.

Not only are the large interests willing to cooperate with the government in forest work, but many have gone so far as to establish and maintain private forest reserves covering extensive areas and protected from cattle at great expense. Prominent in this work is the Bishop estate, which has for some time maintained private forest reserves aggregating 18,500 acres on the island of Hawaii and 20,700 acres on Oahu. Plans for setting apart large additional areas on these two islands and on Kauai are already well developed, and in each case where the Bishop estate had lands within the areas proposed by the government as forest reserves, the response of the trustees to suggestions of cooperation has been prompt and cordial.

Other notable instances of corporation interest in forestry are afforded by Messrs. C. Brewer & Co., who have for a number of years maintained a private forest reserve of approximately 25,000 acres in the district of Kau on Hawaii; by the Baldwin interests on Maui, and by the Lihue Plantation Company on Kauai. This phase of forest work will be continued during the coming year, and will be vigorously pushed until the protection of the forest on the important watersheds on each of the larger islands is secured.

The work of the division of forestry toward the introduction of exotic trees and the planting of waste areas has, during the past year, been mainly in the way of furnishing good tree seed to prospective planters and by advising them as to the ways and means to be followed to insure success in making forest plantations. Seed of the important trees, both native and introduced, has been collected, and is held on sale at prices just covering the cost, while those wishing only a few trees can obtain them as seedlings from the government nursery. The nursery also provides, free of charge, ornamental and forest trees for use on school grounds and around public institutions.

Limited appropriations have prevented any extensive forest planting by the government, but in cooperation with ranch and plantation companies throughout the Territory a considerable quantity of seed has been furnished for experimental purposes. As this seed is tried under varying conditions of soil, aspect, and elevation, the results obtained will, when compiled, be of much value in future work.

A number of the large corporations have taken an active interest in forest planting in past years and, with certain of them, it has become a fixed policy to put in annually a certain number of thousand trees or to plant a definite area. The forest plantations near Lihue, Kauai, and on the island of Maui stand out with special prominence because of the size of the areas planted and the sustained interest manifested throughout a long term of years. But throughout the Territory much commendable work has been done by other corporations and by individuals. It is the desire and intention of the division of forestry to help and encourage this work in every possible way.

During the long drought from which the Territory suffered during the early months of 1905 there were a number of forest fires on the different islands. While the areas burned over were not large in terms of the mainland, the damage done was considerable. As Hawaiian forests are easily destroyed,

forest fire is a serious menace here as it is elsewhere. Prompt action by the legislature, which was then in session, in appropriating a special fund for fighting fire enabled the board to put a force of men in the field and to get the largest of the fires, which was on government land, under control. The others were extinguished by the corporations on whose lands they occurred. Later in the session a forest-fire law was enacted, which, it is believed, will help in controlling if not in preventing future fires.

One other matter of forest interest should be mentioned here. That is the decision of the Bishop estate to lumber a section of the koa forest on its land in the district of Kau, on Hawaii. Koa is the most valuable of the Hawaiian woods and for beauty of color, grain, and texture should easily take its place in the first class of woods used for high-grade interior finish and cabinet work. As a step toward the economic development of the Hawaiian forests this undertaking is significant.

As a whole the outlook for forestry in Hawaii is promising. The necessity of watershed protection makes the needs of a forest cover apparent, and an excellent public sentiment supports the work which is undertaken. This, with the increasing interest in forest planting, should assure continued financial support. The field for forest work in Hawaii is a large one, and the results obtained help to strengthen the foundations on which the continued prosperity of the Territory rests.

ENTOMOLOGY.

[By Alexander Crow.]

Hawaii early recognized the importance of naturally controlling the destructive insects that had been introduced upon trees and plants brought from other countries by her citizens, in an effort to secure the best plants and fruits to be had in the world. In the primary efforts to subdue the injurious insects recourse was taken to the old methods of controlling such pests—by the use of spray mixtures, poisons, and poisonous gases for fumigation—but without any practical results. The successful work with beneficial insects in subduing insect pests in California was taken up by the agricultural authorities of Hawaii and the services of Prof. Albert Koebele were secured for collecting beneficial insects in foreign countries and introducing and establishing them in Hawaii. His work in this line has been so successful that now some of the former serious introduced pests have been brought under subjection without any immediate personal outlay to the agriculturist or fruit grower.

A few years ago a sugar-cane pest (*Perkinsiella saccharicida*, Kirk.) made its appearance in the sugar-cane fields of Hawaii, introduced, it was supposed, from Australia. It has been stated that this pest caused a monetary loss of upward of \$3,000,000 to the sugar interests of Hawaii the past year. It was so destructive to the industry that the Hawaiian Sugar Planters' Association a year ago joined the Territorial board of agriculture and forestry and engaged Prof. R. C. L. Perkins, then acting superintendent of entomology for Hawaii, to accompany Professor Koebele on a mission to Australia to search for the natural enemies of the "cane-leaf hopper." It did not take their trained eyes long to discover the insects that were holding that insect in check. A few of each were successfully introduced and established here, and now they have been propagated and planted on the various islands and are well established wherever placed. One of the most important is a very minute fly that destroys the eggs of the "leaf hopper" by inserting its ovipositor into the leaf-hopper egg and depositing therein an egg, which soon hatches into a small, blind, footless grub, afterwards changing to a pupa and fly; and in the latter stage it cuts its way out and is soon ready to continue the good work.

For the better protection of the Territory the board of agriculture and forestry has issued regulations against the importation of certain fruits from countries or districts infested with fruit flies. To further protect the islands from injurious insects and plant diseases, I addressed a letter, on November 28, 1904, to the Hon. James Wilson, Secretary of Agriculture, who, in conjunction with the Secretary of the Treasury, obtained for us permission to immediately fumigate with hydrocyanic-acid gas all cases of plants or trees arriving for this Territory. This privilege is most important, as it will destroy any insects that have developed on the voyage or on the dock before inspection and delivery of the plants.

One of the most important divisions of the work of the board is the propagation or collection and distribution of beneficial insects and fungous disease for the suppression of insect pests. Not only that, but economic entomology has been drawn upon for checking the too great increase of noxious weeds and undesirable plants. Probably Hawaii is the first country that purposely introduced insects for the suppression of the latter, as instance the work but recently accomplished in checking the lantana that was introduced as a choice flowering shrub, and by the assistance of the wild doves and "Mynah" birds the seed was scattered until it took possession of all uncultivated lands, destroying the value of it for pasture, as the hills and valleys were covered with an almost impenetrable jungle of thorny bushes. Professor Koebele collected in Mexico the various insects that work exclusively upon the plant and forwarded them to Professor Perkins, who propagated and distributed them on the islands, and the value of their work is now evident in the dried-up, defoliate branches of lantana.

The more important insects are a small, bluish butterfly, the larvae of which destroys the flowers, and a small, dark fly, the maggots of which destroy the lantana seeds, thus checking the increase and spread of the pest, so that hereafter when land is cleared it remains so. In the destruction of the foliage a leaf miner and a tingidæ play important parts.

Agriculture and horticulture will probably continue to be the principal industries of this Territory, and the Territorial and Federal governments, as well as the Hawaiian Sugar Planters' Association, have well-equipped entomological establishments for carrying on the particular work that each has to attend to.

The Federal experiment station has a division of entomology, of which Mr. D. L. Van Dine has charge, and it gives special attention to agricultural pests. The Hawaiian Sugar Planters' Association has a large and well-organized staff of entomologists devoting their entire time to insects pertaining to sugar cane and the propagation of parasites and predaceous insects that infest cane. Prof. R. C. L. Perkins is in charge, and has a thorough knowledge of the fauna of the islands.

The Territorial board of agriculture and forestry entomologists are located at the board's headquarters and grounds on King street. The duties of that division are to guard against the further introduction of insect pests and diseases into the Territory. Inspectors board all vessels arriving from outside points and all plants are examined and, if deemed necessary, are fumigated with hydrocyanic-acid gas. The board is well equipped with fumigating chambers on the principal docks, where the work of disinfection can be thoroughly and promptly done. By the sanction of the postal authorities all plants received by mail are also inspected, as it is a well-known fact that such small plants frequently harbor injurious pests and diseases. All this work should reduce to a minimum the danger of introducing new pests and blights on the islands. The Territorial entomologists also attend to the propagation and distribution of parasitical and beneficial insects for the suppression of noxious insects infesting trees and plants, as well as insects for the control of lantana.

Under the instigation of Mr. Jacob Kotinsky, assistant Territorial entomologist, an entomological society was organized on January 26, 1905, of which Prof. R. C. L. Perkins is president and Jacob Kotinsky is secretary-treasurer. The society meets monthly and now has a membership of 20.

SUGAR PLANTATION PESTS.

[By R. C. L. Perkins.]

During the summer of 1904 the Hawaiian Sugar Planters' Association appointed a staff of entomologists to form a division of entomology in connection with their prior established experiment station at Makiki, providing fully equipped offices, a laboratory, library, and all the necessaries for scientific work.

This association has always given liberal financial aid to the Territorial entomologists of the bureau of agriculture, but the serious loss to the sugar industry occasioned by an imported insect on various plantations, rendering it necessary for the entomologists to give their undivided attention to this pest, largely brought about the establishment of the division of entomology above mentioned.

Such undivided attention could never be given by the entomologists in the

Territorial offices, who are naturally subject to inquiries from the public for information and advice on all manner of insect pests, many of these being comparatively of quite trivial importance.

In May of last year Mr. Albert Koebele, accompanied by the writer, visited Australia in search of such predaceous and parasitic insects as might be found to attack the above-mentioned insect pest of the sugar cane, with a view to importing them into these islands. About six months were spent mainly in this work, and an extensive study was made of many leaf hoppers, to which class the pest in question belongs, and the natural enemies that keep them in check. Every two or three weeks living predaceous insects or parasites, such as attack or might attack the sugar-cane leaf hopper, were sent to the islands to be tended by the resident members of the staff.

It is gratifying to know that several of the leaf-hopper enemies are now fully established here, and all are in the way of being distributed to every plantation on the several islands. As far as time permitted, attention was also given to beneficial insects which would destroy some other of our imported pests, such as various scale insects, hornfly, etc., and many were sent to the islands for this purpose.

It is now possible for the many plantations to be visited and thoroughly inspected by competent entomologists at regular intervals; and full records are kept as to the abundance or otherwise of insects beneficial or noxious on each plantation. The publication of the results of the Australian mission will, it is expected, be completed within a few months, the work on the material collected being already far advanced, and it can not fail to be of great scientific interest as well as of practical use.

COMMERCE AND NAVIGATION.

[By E. R. Stackable.]

Commercial statistics of the Territory of Hawaii for the fiscal year ended June 30, 1905, are extremely satisfactory. While they show a decrease in round numbers of \$1,000,000 in value of our imports, they also show an increase of \$11,000,000 in the value of our exports, making a net gain of \$12,000,000 in the Territory's trade balance for the year.

From foreign countries our imports have decreased by \$780,000, Great Britain, the British colonies, and Japan all showing smaller shipments to Hawaii, while the German trade has gained considerably. These changes also affect our foreign transportation, there being a corresponding decline in the British and Japanese tonnage entering Hawaiian ports.

In Hawaii's trade with the mainland there has been a decrease of \$280,000 in the value of goods imported; on the other hand, the value of our exports to the mainland has gained by nearly \$11,000,000, from \$25,133,533 up to \$36,114,985, nearly the whole of which can be attributed to the higher price paid for sugar.

In the 1904 fiscal year the quantity of sugar exported was 736,491,992 pounds, worth \$24,359,385, an average of 3.30 cents per pound. For the 1905 fiscal year the quantity of sugar exported amounted to 832,721,287 pounds, worth \$35,112,127. The average price of the raw sugar exported last year was 4.187 cents per pound, an increase of 0.887 cent over the previous year. But in the last year's sugar trade there were also shipped to San Francisco 21,118,058 pounds of refined sugar, worth \$1,166,091, an average of 5.52 cents per pound. This was an export price of 1.333 cents per pound higher than the export price of the raw sugar.

While there was very little difference in the quantity and value of coffee shipped to the mainland in 1904 and 1905, the quantity of rice exported increased from 39,911 pounds in 1904 up to 2,771,083 pounds last year. The value of the fruit exported last year showed a gain of \$66,000, and of honey, \$7,600. There has been a falling off in the quantity of hides, partially due, no doubt, to the establishment of the tannery in Honolulu, but at the same time the value of hides has increased.

The statistics compiled at the custom-house office at Honolulu show for the first time, in detail, the nature and value of our different articles of import. Manufactures of iron and steel amounted to almost \$1,500,000 in value last year; manufactures of cotton, and animal food, such as hay and grain, each reached \$1,000,000 in value, while the value of the oil imported was \$995,000 last year. This table is of particular interest, and is given, as follows:

Principal domestic articles shipped from the United States to the District of Hawaii, with values, for the fiscal year ended June 30, 1905.

Domestic articles.	Value.	Domestic articles.	Value.
Animals.....	\$93,146	Provisions (meat and dairy products).....	\$547,162
Animal food (hay, grain, etc.).....	1,044,642	Rice.....	143,142
Breadstuffs.....	645,818	Sugar and molasses.....	110,006
Cotton and manufactures of.....	1,020,125	Spirits, wines, and malt liquors.....	468,179
Chemicals.....	242,436	Soap.....	103,178
Fertilizers.....	644,491	Tobacco, manufactures of.....	522,945
Fish.....	241,046	Vegetables.....	212,466
Fruits and nuts.....	173,482	Wood and manufactures of.....	549,884
Iron and steel, manufactures of.....	1,453,160	Wool, manufactures of.....	183,584
Jewelry.....	182,477	All other articles.....	1,529,503
Leather and manufactures of.....	330,460		
Oils.....	965,751	Total.....	11,612,080
Paper and manufactures of.....	168,988		

Exports for the fiscal year ended June 30, 1905.

Domestic merchandise to noncontiguous territory or mainland.....	\$36,072,030
Domestic merchandise to foreign countries.....	54,758
Foreign merchandise to noncontiguous territory or mainland.....	42,946
Foreign merchandise to foreign countries.....	4,783
Total.....	36,174,526
Total specie exported to foreign countries and shipped to noncontiguous territory or mainland.....	214,912

Total value of all articles imported from and exported to foreign countries for the fiscal year ended June 30, 1905.

Countries.	Imports.	Exports.	Countries.	Imports.	Exports.
Great Britain.....	\$305,879	\$810	Chile.....	\$448,278	
British colonies.....	544,679	22,601	France.....	14,967	
Germany.....	544,534	1,824	Other countries.....	19,847	\$3,821
Hongkong.....	174,129	9,016			
Japan.....	962,651	21,900	Total.....	3,014,904	59,541

Shipments received from the United States.....	\$11,703,510
Imports from foreign countries.....	3,014,964

Total..... 14,718,483

Shipments to noncontiguous territory.....	36,114,085
Exports to foreign countries.....	50,541

Total..... 36,174,526

Domestic exports to foreign countries for the fiscal year ended June 30, 1905.

Articles.	Foreign countries.		Noncontiguous territory.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Pounds.		Pounds.		Pounds.	
Sugar, raw.....	100	\$4	811,603,229	\$33,946,036	811,603,229	\$33,946,040
Sugar, refined.....	250	17	21,118,058	1,166,091	21,118,308	1,166,108
Coffee, raw.....	106,909	12,966	1,437,053	173,617	1,543,962	186,583
Rice.....	3,100	104	2,771,083	84,414	2,774,183	84,518
Fruits and nuts.....		1,453		193,373		194,826
Honey.....		287		21,977		22,264
Hides.....			899,963	84,092	899,963	84,092
Wool, raw.....			423,114	53,558	423,114	53,558
Other.....		39,827		348,881		388,806
Total.....		54,758		36,072,030		36,126,797

REPORT OF THE GOVERNOR OF HAWAII.

Quantity and value of sugar exported for ten years.

Year ended June 30—	Pounds.	Value.	Price per pound.
			Cents.
1896.....	352,175,269	\$11,336,796	3.22
1897.....	431,196,980	13,164,379	3.06
1898.....	489,766,788	16,660,109	3.33
1899.....	482,299,880	17,267,683	3.72
1900.....	504,719,106	20,362,150	4.06
1901.....	680,877,934	27,063,863	3.92
1902.....	720,553,357	24,147,884	3.35
1903.....	774,825,420	25,665,733	3.31
1904.....	736,491,992	24,359,885	3.30
1905 (raw).....	811,603,329	33,946,040	4.19
1905 (refined).....	21,118,308	1,166,108	5.52

Value of the carrying trade to and from the district of Hawaii for the fiscal year ended June 30, 1905.

Nationality.	Imports.	Exports.
American.....	\$1,550,898	\$33,437
British.....	655,601	21,247
French.....	18,222	
German.....	605,228	
Italian.....	7,835	
Norwegian.....	24,348	4,757
Other.....	152,832	100
American (noncontiguous territory).....	3,014,964	59,541
	11,703,519	36,114,985
Total.....	14,718,483	86,174,526

Vessels entering and clearing in the district of Hawaii for the fiscal year ended June 30, 1905.

Nationality.	Entered.		Cleared.	
	Number.	Tonnage.	Number.	Tonnage.
American.....	406	800,485	375	800,287
British.....	63	148,989	57	135,624
Chilean.....	2	2,622	3	4,400
French.....	2	3,151	2	3,151
German.....	6	8,501	8	11,449
Italian.....	2	2,943	2	2,943
Japanese.....	4	13,840	4	13,840
Norwegian.....	1	1,885	1	1,585
Total.....	486	982,116	452	973,279

Total number of vessels entering and clearing in the district of Hawaii during the fiscal year ended June 30, 1905.

	Coastwise. ^a				Foreign.			
	Entered.		Cleared.		Entered.		Cleared.	
	Num-ber.	Ton-nage.	Num-ber.	Ton-nage.	Num-ber.	Ton-nage.	Num-ber.	Ton-nage.
Honolulu.....	253	502,043	253	537,743	141	384,811	102	341,107
Hilo.....	33	42,417	30	39,791	3	4,118		
Kahului.....	19	24,871	24	26,890	6	7,542	1	1,399
Koloa.....	8	6,851	19	16,342	1	743		
Mahukona.....	20	7,451	23	10,007	2	1,269		
Total.....	333	583,633	349	630,773	153	398,483	103	342,506

^a The figures under the title "Coastwise" refer to American vessels doing business between the Hawaiian and mainland ports, but do not include vessels engaged in traffic among the Hawaiian Islands.

Passengers departed from the port of Honolulu to oriental ports for the fiscal year ended June 30, 1905.

Ports.	Cabin.	Steer- age.	Total.
Yokohama.....	92	4,764	4,856
Kobe.....	2	77	79
Nagasaki.....	8		8
Hongkong.....	58	1,376	1,434
Shanghai.....	12	7	19
Total.....	167	6,224	6,391

Customs receipts for fiscal year ended June 30, 1905.

Duties on imports.....	\$976,946.91	Navigation fees.....	\$1,202.75
Tonnage dues.....	21,203.16	Overtime of officers.....	476.00
Official fees.....	7.00	Immigration fund.....	22,540.00
Fines, penalties, and forfeitures.....	3,764.28	Other collections.....	12,689.16
Storage, labor, and drayage..	4,511.12	Total.....	1,043,340.88

POSTAL AFFAIRS.

[By Joseph G. Pratt.]

Formerly and before annexation the postmaster-general of Hawaii was ex officio postmaster of Honolulu, and a report made by him embraced the business transacted at all of the offices in the Hawaiian Islands, whereas now the offices and postmasters are for the most part independent of each other and under the supervision of the honorable Postmaster-General, to whom reports are regularly made.

The Honolulu office acts as the depository for all the other offices, including Pago-Pago, Samoa, for the deposit of money-order and postal funds, which in turn transmits through its designated depository to the subtreasuries at San Francisco and Chicago. The money-order division of the Honolulu post-office also acts as the exchange office for international money orders issued in Hawaii and payable in China, Japan, and Australian colonies, and makes regular reports thereof to the honorable First Assistant Postmaster-General.

POSTAL REVENUE.

The following table will show the gross receipts of this office (arranged by quarters) for the year ended June 30, 1905. These receipts show the amount of postage stamps and stamped paper sold, rents collected for lock boxes, postage on second-class matter, and sale of empty cases:

	Stamps and stamped paper.	Box rents.	Second- class postage.	Waste.	Total.
1904.					
September.....	\$12,770.72	\$1,380.15	\$270.50	\$1.50	\$14,422.87
December.....	15,932.79	1,372.55	278.73	2.00	17,586.07
1905.					
March.....	15,039.33	1,365.40	273.98		16,678.71
June.....	16,000.08	1,381.30	300.89	1.70	17,682.97
Total.....	59,751.92	5,499.40	1,124.10	5.20	66,380.62

The gross receipts for the year ended June 30, 1904, were \$64,271.69, thus showing an increase of \$2,108.93.

MONEY-ORDER DIVISION.

On June 30, 1905, there were in this Territory 59 money-order offices, of which 34 were international money-order offices, where money orders can be

purchased payable in any part of the world. A list of these offices is herewith attached:

HAWAII COUNTY.

Hakalau.^a
 Hilo.^a
 Holualoa.^a
 Honokaa.^a
 Honomu.^b
 Hookena.^b
 Kailua.^b
 Kamuela.^b
 Kawaihae.^a
 Kohala.^a
 Kukuihaele.^b
 Kurtistown.^a
 Kealahou.^a
 Laupahoehoe.^a
 Mahukona.^b
 Mountaiview.^b
 Naalehu.^a
 Olaa.^a
 Ooka.^a
 Paauilo.^b
 Paauhau.^b
 Pahala.^a

Papaaloa.^a
 Papaikou.^b
 Pepeekeo.^a
 Waiohinu.^b

MAUI COUNTY.

Hamakua.^b
 Hana.^b
 Kahului.^b
 Kamalo.^b
 Kaupo.^b
 Kihei.^b
 Kipahulu.^b
 Lahaina.^a
 Makawao.^b
 Paia.^a
 Punahoa.^a
 Wailuku.^a

KALAWAO COUNTY.

Kalaupapa.^b

OAHU COUNTY.

Aiea.^a
 Ewa.^a
 Haleiwa.^b
 Honolulu.^a
 Kahuku.^a
 Wahiawa.^b
 Waiāluā.^a
 Waiānae.^b
 Waimanalo.^a
 Waipahu.^a

KAUAI COUNTY.

Eleele.^a
 Hanalei.^b
 Hanapepe.^b
 Kealia.^a
 Kekaha.^a
 Kilauea.^a
 Koloa.^a
 Lihue.^a
 Makaweli.^a
 Waimea.^a

Money-order business transacted at the Honolulu post-office during the year ended June 30, 1905.

	Number.	Amount.	Fees.	Total.
Domestic orders issued.....	21,420	\$395,505.43	\$1,993.11	\$397,498.54
International orders issued.....	5,531	122,954.43	884.09	123,838.52
Remittances from other offices.....				2,158,541.81
Total.....	26,951	518,459.86	2,877.20	2,679,878.87

Value of orders paid and repaid (60,835).....	\$1,825,899.43
Transmitted to depository.....	844,797.41
Balance on hand July 1, 1905.....	\$2,670,696.84
Total.....	9,182.03
	2,679,878.87

International orders and amount issued in the Territory on Japan, China, and the Australian colonies.

	Orders.	Amount.
Payable in Australian colonies.....	242	\$3,637.70
Payable in New Zealand.....	118	2,196.30
Payable in Hongkong.....	13	316.00
Payable in Japan.....	15,281	383,258.30
Total.....	15,654	\$394,408.30

COMPARISON OF MONEY-ORDER BUSINESS OF 1905 WITH THAT OF 1904.

1. There were 1,290 less domestic orders issued.
2. There were 85 more international orders issued.
3. The amount of domestic orders issued, \$397,498.54, represents a decrease of \$11,720.
4. The amount of domestic and international orders paid and repaid, \$1,825,899.43, represents a decrease of \$148,724.54.

^a Domestic money-order offices.

^b International money-order offices.

5. The amount received in fees was \$674.03 less than in 1904.
6. The average amount of each domestic order issued was \$18.46.
7. The average amount of each international order issued was \$22.23.
8. The average fee on domestic orders was 9 cents.
9. The average fee on international orders was 16 cents.

REGISTRY DIVISION.

The registry system insures safe transit and correct delivery of all mail matter and reaches every post-office in the world. Valuable letters and parcels, and those which the sender wishes positively to know have been correctly delivered, should be registered.

The registry fee is 8 cents for each separate letter or parcel, in addition to the postage, both to be fully prepaid with postage stamps attached. In case of loss the sender or owner of a registered article prepaid at the letter rate of postage mailed at and addressed to a United States post-office is indemnified for its value up to \$25.

The following table will show the amount of registry business transacted at this office during the year ended June 30, 1905:

Domestic letters registered with fee attached.....	13,826
Domestic parcels registered with fee attached.....	8,677
Foreign letters registered with fee attached.....	6,519
Foreign parcels registered with fee attached.....	347
Total number of paid registrations.....	29,369
Letters and parcels registered free.....	1,073
Total number of registrations.....	30,442

Amount collected for registry fees, \$2,349.52.

As compared with a similar statement of the volume of business transacted during the fiscal year ended June 30, 1904, these figures show increases and decreases as follows:

Increase in domestic letters registered.....	2,704
Decrease in domestic parcels registered.....	208
Decrease in foreign letters registered.....	924
Increase in foreign parcels registered.....	2
Increase in free registrations.....	101

Net increase in articles registered with fee paid..... 1,574

Increase in registry fees, \$125.92.

One feature of the registry system which seems to be not fully understood by residents of Honolulu is that letter carriers receive for registration any letter or parcel mailed at the letter rate of postage and sender is given a receipt therefor. This may explain why so few letters are registered by carriers on their respective routes, there being but 106 letters and parcels received by carriers for registration during the year.

During the year ended June 30, 1905, the registry division handled 147,982 pieces of registered mail, as against 141,780 pieces for 1904, showing an increase of 6,202 pieces.

RAILWAY-MAIL SERVICE.

The transportation of all mails in the Territory is under the office of the honorable Second Assistant Postmaster-General and in charge of an assistant superintendent of the railway-mail service, located at Honolulu, who supervises the details connected with this branch of the service.

As was the case in preceding years, so last year the local steamboat routes covered all navigable waters in and around the different islands. Every landing in the islands is touched by some mail steamer.

All steamers plying between Hawaiian ports carry the mail. The star route and mail messenger service on the islands is so arranged as to connect with mail steamers at any time, whether on a regular schedule or at irregular intervals. At the first port at which a steamer lands on any island telephone communication is had with all post-offices on that island advising as to mails carried on that steamer and at what point they will be landed; with this

Information the carriers meet the steamer and take the mails to destination without delay.

Summary of mail service in operation in Hawaii on June 30, 1905.

Service.	Routes.	Miles.	Cost.
Star.....	27	565.62	\$19,608.00
Steamboat.....	13	13,981.00	85,000.00
Railroad.....	4	108.06	3,550.38
Mail messenger.....	17	73.49	4,340.00
Special office.....	1	1,400.00	-----
Total.....	62	16,128.16	112,498.38

The above does not include 31 routes of gratuitous mail messenger service, with a total length of 39.80 miles.

FREE-DELIVERY SERVICE.

Free delivery was established at the Honolulu office on August 13, 1901, with 9 letter carriers and one collector, and at that time between Liliha street and McCully street, and from the water front to Wilder avenue and as far up Nuuanu Valley as Judd street. At that time all carriers were unmounted and made deliveries afoot, using the car lines to and from their respective routes. Since the above date the service has been extended to cover additional territory, and at this date there are 11 carriers and 2 collectors; 8 carriers have carts, 1 the use of a bicycle, and 4 foot carriers, and practically all of the city from Diamond Head to Moanalua and from the water front to the electric-light station in Nuuanu Valley is served by carriers.

SPECIAL-DELIVERY SERVICE.

Immediate delivery is made by messenger to all parts of the city within letter-carrier limits of letters and parcels bearing a 10-cent special-delivery stamp, in addition to the lawful postage.

Special delivery can only be effected by the use of the special-delivery stamp.

PARCELS POST.

Parcels post affords the only channel for the legitimate exchange of packages of miscellaneous merchandise by mail between different countries. That the service is appreciated is evident by the increasing volume of business in this particular branch of the service.

During the fiscal year ended June 30, 1905, there were dispatched from this office 385 parcels, with a total weight of 644 pounds, an increase in the number of parcels of 353 and an increase in weight of 604 pounds. During the same period there were received 1,407 parcels, with a total weight of 2,905 pounds, an increase in the number of parcels of 1,360 and an increase in weight of 2,794 pounds.

Customs duties amounting to \$1,664.60 were collected on 808 dutiable importations through the mails from July 1, 1904, to June 30, 1905, and, in addition to this number, 29 dutiable parcels were either forwarded or returned to senders.

STATIONS.

Three numbered stations have recently been ordered established under jurisdiction of the Honolulu post-office, to become effective October 1, 1905. At these stations postage stamps and stamped paper of all kinds will be on sale, money orders may be purchased, and letters and parcels registered. It is anticipated that the establishment of these stations will prove a great convenience to the public. Location and numbers of stations will be as follows: Station No. 1, corner of River and Hotel streets; station No. 2, 1872 King street (Kalihi); station No. 3, corner of King and McCully streets.

POST-OFFICE INSPECTOR.

The post-offices in the Territory of Hawaii are included in the California division, under the supervision of the post-office inspector in charge at San Francisco, and a resident inspector is detailed to Hawaii, with headquarters at Honolulu.

Inspectors are authorized to enter and inspect post-offices at all times and to make such other inquiries and investigations as the interest of the service may demand.

DEAD-LETTER BUREAU.

At the Honolulu office is located a branch of the dead-letter office, a feature of the service which is connected with no other office on the mainland. Owing to the nature of the population of Hawaii and the distance from the mainland being so great, the Department, a short while after annexation, deemed it advisable to establish a dead-letter bureau here. This has proved a great advantage to the residents in Hawaii, as all undelivered correspondence originating in the islands is treated here, thus obviating the long delay which would ensue if such matter were forwarded to Washington, D. C., and then returned to the islands.

During the fiscal year ended June 30, 1905, the dead-letter bureau handled the following undelivered correspondence:

RECEIVED.

Mailable letters.....	11, 378	Foreign prints, etc.....	3, 208
Unmailable letters.....	1, 914	Registered matter.....	907
Third and fourth classes.....	376		
Foreign letters.....	7, 719	Total.....	25, 500

Of this number 12,340 pieces were opened and either returned to writers or destroyed, 12,893 pieces were returned unopened, and 267 pieces are now on hand.

In this mail was found letters containing money amounting to \$13.34; drafts, notes, etc., \$1,157.54; 89 packages of merchandise, 55 photographs, 29 receipts and paid notes, and 58 letters containing stamps.

The annual report of the year 1904 shows receipts of 22,585 pieces, and that of the year 1905 shows 25,500 pieces handled—an increase of 2,915 pieces.

List of post-offices and postmasters.

COUNTY OF HAWAII.

Post-office.	Postmaster.	Post-office.	Postmaster.
Hakalau ^a	Wm. Ross.	Lalamilo.....	W. Vredenberg.
Hilo ^a	Geo. Desha.	Laupahoehoe ^a	E. W. Barnard.
Holualoa ^a	L. S. Aungst.	Mahukona ^b	E. A. Fraser.
Honokaa ^a	A. B. Lindsay.	Mountainview ^b	E. L. Rackliff.
Honoumū ^b	Wm. Hay.	Naalehu ^a	Carl Wolters.
Honuapo.....	Geo. Dawson.	Napoopoo.....	R. Wassman.
Hookena ^b	Kate M. Kaai.	Olua ^a	Jno. Watt.
Hoopuloa.....	D. L. Kelikuli.	Ookala ^a	W. G. Walker.
Kailua ^b	J. P. Curtis.	Paauhau ^b	James Gibb.
Kalapana.....	D. Koloi.	Paauilo ^b	A. Lidgate.
Kamuela ^b	Moses Koki.	Pahala ^a	T. C. Wills.
Kawaihai ^a	Chas. B. Wells.	Pahoa.....	W. G. Carpenter.
Kealahou ^a	Maggie Wassman.	Papaaloa ^a	A. C. Palfrey.
Keauhou.....	H. L. Kawewehi.	Papaikou ^b	G. V. Jakins.
Kohala ^a	Mabel R. Woods.	Pepeekeo ^a	E. N. Deyo.
Kukuihaele ^b	Wm. Horner.	Volcano House.....	
Kurtistown ^a	A. G. Curtis.	Walohinu ^b	Anna McCarthy.

COUNTY OF KAUAI.

Eleele ^a	John I. Silva.	Kilauea ^a	Isaac M. Cox.
Hanalei ^b	C. H. Willis.	Koloa ^a	A. Buccholtz.
Hanapepe ^b	H. H. Brodie.	Lihue ^a	Frank Crawford.
Keala ^a	Jno. W. Neal.	Makaweli ^a	B. D. Baldwin.
Kekaha ^a	Olaf Omsted.	Waimea.....	C. B. Hofgaard.

^a International money-order offices.^b Domestic money-order offices.

List of post-offices and postmasters—Continued.

COUNTY OF KALAWAO.

Post-office.	Postmaster.	Post-office.	Postmaster.
Kalaupapa ^a	Jno. S. Wilmington.	Kalawao	William Clark.

COUNTY OF OAHU.

Aiea ^b	Jas. A. Low.	Wahiawa ^a	L. G. Kellogg.
Ewa ^b	Geo. F. Renton.	Waialea.....	T. H. Gibson.
Haleiwa ^a	A. Waikoloa.	Waialua ^b	W. W. Goodale.
Heela.....	Frank Pahia.	Waianae ^a	Fred'k Meyer.
Honolulu ^b	Joseph G. Pratt.	Waikane.....	S. P. Kaiwi.
Kahuku ^b	Andrew Adams.	Waimanalo ^b	Arthur Irvine.
Lale.....	J. Keaulama.	Waipahu ^b	John Travis.
Pearl City.....	Jno. P. Keppler.	Midway.....	B. W. Colley.

COUNTY OF MAUI.

Haiku.....	James Lindsay.	Kiheia.....	James Scott.
Hamakuapoko ^a	W. F. Mossman.	Kipahulu ^a	Andrew Gross.
Hana ^a	Nils Omsted.	Lahaina ^b	Arthur Waal.
Halawa.....	Emma Kane.	Makawao ^a	Antone F. Tavares.
Honokahau.....	R. C. Searle.	Makena.....	J. M. Napoulou.
Huelo.....	W. F. Pogue.	Paia ^b	David C. Lindsay.
Kaanapali.....	Frank Stark.	Peahi.....	George Groves.
Kahului ^a	R. W. Filler.	Pelekunu.....	Jennie Kapahu.
Kalae.....	Ellen Sobey.	Pukoo.....	Andrew T. Bannis ter.
Kamalo ^a	D. McCorriston.	Puunene ^b	H. P. Baldwin.
Kaupo ^a	M. H. Kane.	Waikoa.....	Joaquin Vincent.
Keanae.....	J. W. K. Halemano.	Wailuku ^b	V. A. Vettleson.
Keomuku.....	Chas. Gay.		

^a Domestic money-order offices.^b International money-order offices.

FEDERAL LAW WORK.

[By Robert W. Breckons.]

During the fiscal year ended June 30, 1905, 67 criminal cases were instituted in the Federal court in Hawaii, and during the same period 64 were terminated. Of the cases terminated, 3 arose under the customs laws, 14 under internal-revenue laws, 9 under postal laws, and 38 under miscellaneous laws. Cases were terminated as follows: Fifty-one convictions, 3 acquittals, and nolle prosequi entered in 9 cases.

Of the miscellaneous cases, many were charges of conspiracy, based on section 5440, Revised Statutes of the United States. This section is utilized to prevent and punish, as far as possible, the sale of women in the Territory. In many cases the women themselves are not averse to sale—in fact, in more than one case coming under my observation the woman arranged the sale. Under these circumstances a charge of slavery can not be made.

Inasmuch as the Edmunds Act is in force in the Territory, the charge is made that the husband and purchasers, together with the "go-betweens," conspired together to have the crime of adultery committed between the wife and the purchaser. In some of the cases, however, downright slavery is shown to exist. During the year convictions were obtained against two defendants for holding a girl to a condition of slavery, and the evidence established beyond a doubt that a girl, when about 12 years of age, had been purchased, and for five years had been literally forced to act as a prostitute. At the time of the arrest of the men this girl, then about 17, was a physical, a mental, and a moral wreck.

During the year, at the suggestion of the Attorney-General of the United States, an investigation was made on the Mormon question in so far as the Territory was concerned. It had been stated to that official that at Lela there was a large settlement of Mormons, and that polygamy was generally practiced. The investigation was made by the district attorney, and later the matter was called to the attention of the grand jury. That body had subpoenaed several

prominent gentlemen well acquainted with conditions at Lela. All were agreed on the proposition that no polygamy was practiced, and even went to the extent of saying that one individual was excommunicated from the church because he lived with two women.

During the year 7 civil cases, in which the United States were parties, were terminated—4 customs, 1 post-office, and 2 miscellaneous. Of these 2 were discontinued on settlement and 5 resulted in judgments in favor of the Government. On these judgments were collected \$27,455.08, and \$1,500 by compromise.

This department has had a great deal of work to do during the year in looking up titles to land. The Government is acquiring considerable property in the islands for various purposes. Before this land can be paid for a certificate of title must be secured from the Attorney-General of the United States, who is assisted in the matter by the district attorney. Inasmuch as land titles in the Territory are not as clear as they might be, considerable work is necessary to get at the facts. In several instances titles were found to be so faulty that friendly condemnation suits became necessary.

In passing it might be noted that Government agents securing land have in every case but one been able to secure the land desired at reasonable prices, thus avoiding the delay and vexation incident to a condemnation suit, and I am inclined to believe the one exception will be compromised before trial.

LIGHT-HOUSE ESTABLISHMENT.

[By A. P. Niblack, Lieutenant-Commander, U. S. Navy.]

The following improvements have been made by the inspector's department of the Hawaiian division of the Twelfth light-house district during the fiscal year ended June 30, 1905:

CHANGES IN LIGHTS.

The intensity of the light was increased by substituting a lens lantern in place of the former inadequate lantern at each of the following light stations: Laupahoehoe Point, Hawaii; Paukaa Point, Hawaii; Coconut Point, Hilo, Hawaii; Kawaihae, Hawaii (second change); Mahukona, Hawaii; Kanahena Point, Hawaii; Lahaina, Maui; Honolulu range, rear, Oahu.

The intensity of the light was increased by substituting a post lantern in place of the former inadequate lantern at each of the following light stations: Kawaihae, Hawaii (first change); Maalaea, Maui; Kaunakakai range, front, Molokai; Kaunakakai range, rear, Molokai.

New and improved fourth-order lamps were substituted for the former ones at Lae o Ka Laau Point, Molokai, and Barbers Point, Oahu, light stations.

The color of the light was changed from white to red at Laupahoehoe Point, Kawaihae, and Maalaea light stations. New structures have been erected by the assistant to the engineer of this district at Laupahoehoe Point, Kanahena Point, and Lahaina light stations, and repairs of a more or less extensive nature made at the following light stations: Laupahoehoe Point; Lahaina; Paukaa Point; Kaunakakai range; Coconut Point; Lae o Ka Laau Point; Kawaihae; Honolulu range, front; Kauhola Point; Honolulu range, rear; Kanahena; Barbers Point; Maalaea; Nawiliwili Harbor; light-house depot at Honolulu; Pearl Harbor entrance range beacons.

On May 8 the expense of supplying the current for the electric arc light at the Waiakea light station, Hilo, formerly borne by the Territorial government, was assumed by this department.

BUOYS ESTABLISHED.

The following buoys have been established during the fiscal year ended June 30, 1905: Blonde Reef whistling buoy, Hilo Bay, Hawaii; Blonde Reef south-west end buoy, No. 3, a second-class can, Hilo Bay, Hawaii; Maalaea Anchorage bell buoy, Maalaea Bay, Maui; Kamalo Point Reef bell buoy, southeasterly side of Molokai; Pearl Harbor entrance buoy, No. 1, a second-class tall-type can, Oahu; Pearl Harbor entrance buoy, No. 2, a second-class tall-type nun, Oahu; Pearl Harbor entrance buoy, No. 3, a second-class can, Oahu; Pearl Harbor entrance buoy, No. 4, a second-class nun, Oahu; Middle Loch Shoal buoy, a H.S. second-class can, Pearl Harbor, Oahu; Kalanipua Rock buoy, a H.S. first-class can, off the southerly coast of Kauai.

BUOYS DISCONTINUED.

Blonde Reef buoy, Hilo Bay, Hawaii, a second-class nun, was discontinued and a whistling buoy substituted; Pearl Harbor mid-channel entrance buoy, a P.S. second-class can, was discontinued and instead the entrance of this channel was marked by buoys Nos. 1 and 2.

MISSING BUOYS REPLACED.

The following buoys, missing previous to January 1, 1904, the date upon which the Hawaiian light-house establishment was turned over to the United States, were replaced during the year: Kaunakakai mid-channel entrance buoy; Kaunakakai entrance buoy, No. 1; Kaunakakai entrance buoy, No. 2; Kaunakakai entrance buoy, No. 3; Peninsula Point Shoal buoy, No. 17, Pearl Harbor; Ford Island Spit buoy, No. 19, Pearl Harbor.

All the buoys in the Hawaiian Islands have been overhauled, cleaned, and painted; all in and about Honolulu Harbor have been replaced with new and improved types; all the aids in Pearl Harbor were improved and numbered in sequence, and throughout the buoyage in this subdistrict has been put in good condition; improvements have been made at most of the light stations, and they have been well maintained. The entire cost of maintaining this branch of the light-house department amounted to \$21,821.32.

FEDERAL EXPENDITURES.

[By J. R. Slattery, first Lieutenant, Corps of Engineers, U. S. Army.]

LIGHT STATIONS.

Beacon lights have been reconstructed at the following places at the amounts stated: Laupahoehoe Point, Hawaii, \$481.50; Kanahena Point, Maui, \$976.16; Lahaina, Maui, \$1,396.91.

Minor repairs and improvements were made to the various lights at other points.

The total amount expended on this work during the fiscal year was \$7,196.69.

FORTIFICATIONS.

Sites for fortifications in the Hawaiian Islands have been acquired during the fiscal year at a total expenditure of \$129,962.13. Negotiations were also carried on for the acquisition of additional sites.

RIVERS AND HARBORS.

The river and harbor act approved March 3, 1905, appropriated \$200,000 for improving the harbor at Honolulu. Project for expenditure of available funds was submitted, approved, and proposals for bids were advertised for June 20, to be opened July 20, 1905.

A resurvey of the harbor at Honolulu was made during the fiscal year, at an expenditure of \$1,404.75.

IMMIGRATION SERVICE IN HAWAII.

[By F. M. Bechtel.]

The new immigrant station was opened on July 3, 1905. Theretofore the executive offices of the immigration service had been located in practically one room of the appraiser's building. The quarters for detained immigrants and the station for examination and other work in connection with new arrivals were located on channel wharf. Needless to say, the old accommodations for the work were entirely inadequate. The new home of the service, by contrast, is nothing short of ideal, everything being under one roof, and the arrangement and equipment are perfectly adapted for the purposes sought to be accom-

plished. The executive offices are spacious, airy, and light. The Chinese division has waiting rooms for Chinese who act as witnesses in cases. After giving their testimony they may step out onto one of the broad porches which surround the building, there to enjoy the cool breezes until their friends are ready to accompany them. There are seven large rooms or dormitories, equipped with modern iron standees, or beds of woven wire, furnishing sleeping accommodations for 400 persons should emergency arise.

Adjacent to the dormitories are two rooms used as a hospital for arriving aliens requiring immediate medical treatment. On the ground floor are numerous shower baths, sinks, and closets for both sexes, with up-to-date sanitary appliances. In the rear of the building, on the ground floor, is a large dining room with a seating capacity for 200 persons. Adjoining is a spacious kitchen with sinks and pantries. The kitchen is provided with a large United States army range. A completely equipped photographic operating and dark room and large baggage room are also features of the new station.

At this time the work of filling in the land on which the immigrant station is located is rapidly approaching completion. Sodding the land and the planting of alligator pear, papaya, banana, and other trees is contemplated, so that ultimately the property will present an attractive appearance and become one of the beauty spots of the Kakaako district in Honolulu.

The immigration service in Hawaii, of which Honolulu is the port of entry and departure, as at other ports, is charged with the administration of the general immigration laws and of the laws and regulations relating to the exclusion of Chinese. This work is exceedingly important, and, owing to the peculiar geographical location of Hawaii, presents many questions requiring a high order of administrative discrimination and judgment. Japanese and Koreans are the only two classes of aliens who present themselves for admission in any great numbers. The lure to Hawaii for these Asiatics is the opportunity for immediate employment in the sugar-raising industry, which offers to them better wages and homes than they can find in their native lands. Under the provisions of existing laws Chinese laborers are, of course, excluded from the United States. Registered Chinese laborers, however, are permitted under certain conditions to depart for visits to their native land and return to Hawaii.

With a Chinese population of 20,000 in this Territory, the work of the Chinese division is very heavy, for in addition to hearing and investigating the claims of Chinese applicants for return certificates there is much labor connected with determining the status of such Chinese as claim to be members of the exempt classes, or Hawaiian-born, and as such, entitled to the privileges which the laws afford to such excepted classes. This work is performed by the inspectors and involves the taking of considerable testimony, as well as personal investigations locally, or, in many instances, on the various islands of the group.

From January, 1903, to the close of the current fiscal year there arrived at this port 7,388 Korean aliens. During the same period 18,027 Japanese arrived, and 816 Chinese of the various classes applied for readmission.

The immigration service in Hawaii has greatly increased since annexation, with the result of greater efficiency in administration of all departments of the work. At the present time there are five inspectors, whose commissions authorize them to act alternately as immigrant and Chinese inspectors, and who are assisted by a force of watchmen, Japanese, Chinese, and Korean interpreters, and a matron.

All arriving aliens are subjected to a medical examination to determine the presence of any loathsome or dangerous contagious disease. As provided by the immigration laws, this part of the work is performed by the officers of the Public Health and Marine-Hospital Service. Proper facilities for this work are provided at the new immigrant station.

The immigration service at the port of Honolulu has an arrangement by which the launch *Waterwitch* is at its disposal at all times as a boarding launch, and all vessels arriving at the port are boarded by an immigrant inspector for the purpose of determining the admissibility of any aliens seeking a landing. The boarding officer also performs various other functions required by the regulations.

Statistics are here furnished regarding the immigration of aliens to the port of Honolulu for the fiscal year ended June 30, 1905, as follows:

Arrivals for fiscal year ended June 30, 1905.

Month.	Japanese.	Chinese.	Koreans.	Miscellaneous.	Total.
1904.					
July.....	509	35	382	9	935
August.....	203	28	290	5	526
September.....	311	31	306	9	747
October.....	318	20	151	12	501
November.....	782	30	403	9	1,224
December.....	297	15	294	6	612
1905.					
January.....	505	3	583	6	1,097
February.....	1,147	3	533	5	1,688
March.....	312		148	4	464
April.....	763	6	467	3	1,239
May.....	473	27	1,063	18	1,581
June.....	261	9	92	25	385
Total.....	5,941	207	4,733	109	10,985

Of the above arrivals there were held for action by the board of special inquiry the following number of cases:

Japanese	527
Koreans	366
Other nationalities.....	7
Total	900

Of these there were deported to the country whence they came, for the causes given, the following:

Nationality.	Dangerous contagious diseases.	Liable to become public charges.	Alien contract labor.
Japanese	106	16	1
Koreans	23	2	
Other nationalities.....		7	
Total	129	25	1

The balance of those detained for the board of special inquiry were principally women, and children held for the arrival of their natural guardians, to whom they were released in due time.

The falling off in alien arrivals at Honolulu during the past few months it is believed is due in a large degree to the diversion of Japanese immigration to Korea and Manchuria, new spheres of Japanese influence, the policy of the Japanese Government being also toward the restriction of emigration of the Koreans themselves.

The abuse of the confidence of their home Government by Japanese securing passports to Hawaii as their ostensible destination, while in reality they intended to, and ultimately did, proceed to the mainland of the United States, may also have considerable to do with the diminished number of arrivals during the past few months, the Japanese Government having taken cognizance of this deception.

PUBLIC HEALTH AND MARINE-HOSPITAL SERVICE.

[By Dr. S. E. Cofer.]

Congress has imposed upon our United States Public Health and Marine-Hospital Service Corps in Hawaii maritime quarantine, epidemic work, medical relief to the merchant marine, the examination of all aliens entering the United

States, general medical and bacteriological research, the collection, tabulation, exchange, publication, and general distribution of sanitary news and statistics, other miscellaneous duties almost too numerous to mention, and finally the investigation of leprosy. Although this Service applies in a greater or less degree all of its functions to the public benefit of Hawaii, the importance of the latter place from a quarantine standpoint has awakened a special interest on the part of Surgeon-General Wyman, so that in the interest of the whole country much liberality has been extended in the making of a quarantine service at this port commensurate with the probable requirements.

The more important Hawaii becomes as a military mobilization point, naval strategic base, and commercial port of call, the more important will it become in the eyes of the medical world as a possible disease center. Therefore, to the Public Health and Marine-Hospital Service falls the task of protecting not only Hawaii, but the mainland and insular possessions as well, from the infection possible under present and future conditions.

The geographical position of Hawaii in its relation to the principal ports of North America and Asia is not unlike that of the hub of a wheel, surrounded by a tire of such places as Manila, Hongkong, Shanghai, Nagasaki, Kobe, Yokohama, Port Arthur, Vladivostok, Victoria, Portland, Port Townsend, San Francisco, Acapulco, Salina Cruz, Panama, and to complete the circle, Auckland and Sydney. Let the various lines of travel represent the spokes and we have a disease radius offering unlimited possibilities for the infection of the central point, Honolulu. The people of Hawaii, taken as a whole, are familiar with the quarantine and are not unappreciative of its advantages. This fact makes it much easier to exercise proper vigilance. Indeed, it would be difficult to find a community more ready to lend intelligent and substantial aid to the work of preserving their sanitary integrity. In anticipation of the growing need therefor, Honolulu will be equipped with a very large and complete quarantine station before another year has passed.

The equipment will include a large wharf especially constructed and arranged for the treatment of infected vessels, a runway connecting the wharf with the station proper, a sea wall surrounding the station proper, and the buildings and appurtenances sufficient for the proper handling of 30 sick persons, 100 first-cabin passengers, 300 second-cabin passengers, 1,000 troops, and 600 immigrants. The buildings are new and are kept in a state of perfect order and preparedness. The hospital and detention facilities are absolutely first class. The station is equipped with a bacteriological laboratory, dispensary, crematory, electric-light plant, its own telephone system, and in the near future will have a steam laundry. When all of the contemplated improvements are made Honolulu will have the finest quarantine station in the world.

During the past four years 1,826 vessels, carrying 98,564 persons, have been inspected, 27 persons have been sent to the quarantine station on account of quarantinable disease, 14,390 have been held as suspects, and 23,438 pieces of baggage have been disinfected.

On account of actual or supposed infection, 280 ships have been disinfected and a vast amount of other work performed which it is not necessary to mention further.

In all our work we have been given much valuable aid by the board of health and the public works department of the Territory of Hawaii, and this acknowledgment is made with thanks. I believe that with the increase in oriental commerce and the development of the Panama and Isthmus of Tehuantepec projects the problem of quarantine and sanitation here in Honolulu is destined to grow to a point where the ingenuity of both the Public Health and Marine-Hospital Service and the board of health will be taxed to its utmost if a proper health status is preserved. The people of Honolulu can make no better investment than to give cooperation and support to the two organizations just named and carry out individually any measures devised by them for the public good.

CLIMATE AND CROP SERVICE.

[By Alex. McC. Ashley.]

During the months of July and August, 1904, office quarters for the Hawaiian weather bureau of the United States Department of Agriculture were secured and furnished in the Alexander Young Building, Honolulu, the necessary instrument platforms were constructed on the King street tower of the building, and

a complete equipment of meteorological instruments of standard pattern was installed. A note as to the character of this equipment may be of interest. On a substantial platform, 16 feet square and 6 feet above the roof, is an 18-foot wind vane and anemometer support of steel, upon which are exposed a 6-foot wind vane and a Robinson anemometer. On another portion of the same platform is located a standard instrument shelter, in which are exposed maximum, minimum, wet-bulb, and dry-bulb thermometers and a Richard Frères thermograph. On the roof of the shelter is an electrical sunshine recorder. On smaller platforms are a 12-inch self-recording rain gauge, an 8-inch stick rain gauge, and a nephoscope.

In the office rooms are mercurial barometers, a Richard Frères barograph, a meteorograph (quadruple register), and a complete duplicate set of instruments displayed for the benefit of visitors. The wind vane, anemometer, 12-inch rain gauge, and sunshine recorder on the roof are connected electrically with the meteorograph in the office, records being thereby automatically secured of the direction of the wind every minute, the velocity and time of occurrence of each mile of wind passing over the station, the time at which each one-hundredth of an inch of rain falls, and the exact time of occurrence of all sunshine. From the thermograph in the instrument shelter and the barograph in the office quarters are secured continuous records of all variations of temperature and atmospheric pressure.

The observatory in the Young Building has been in uninterrupted operation since September 1, 1904, on which date, by previous arrangement, the records and instruments of the Territorial meteorological service were formally transferred to the United States Weather Bureau, and the former service ceased to exist, its duties being then assumed by the Federal Bureau. Beginning with September 1, 1904, complete sets of eye readings of all the observatory instruments have been made at twelve-hour intervals, and the results have been cabled at 8 a. m. and 8 p. m. daily to the central office of the United States Weather Bureau in Washington, D. C., for publication on the national weather map. By an elaborate system of telegraphic relays, the cable messages have also been received daily at a great number of the more important local offices of the Weather Bureau in the mainland States and Territories.

The data obtained by eye observation from the self-recording instruments have been tabulated and presented to the general public in the shape of daily and monthly reports appearing in the newspapers, the publications of our local station, and the publications of our central office in Washington, D. C. The records have also at all times been available in the Honolulu office for consultation by interested parties. During the past ten months Honolulu weather data has been supplied by mail to many applicants in the United States and elsewhere. In this connection it may be well to advise you of a fact, not generally known, concerning the status of our records in courts of law, viz, that the United States Supreme Court has decided (case of *Evanston v. Gunn*, October, 1878) that the record kept by a person employed in the Weather Bureau of the United States, whose public duty it is to record truly the facts therein stated, is competent evidence of such facts. Duly certified copies of Weather Bureau records are therefore furnished to applicants who desire them for legal purposes.

As you are aware, the Territorial meteorologist, in addition to his observation work in Honolulu, collected and published reports of temperature and rainfall at various points in the islands, these reports being supplied by public-spirited citizens, cooperating without salary or other compensation, many of them, indeed, maintaining their own instrumental equipments. At the time the Territorial service went out of existence, rainfall reports were being received from 101 points and temperature reports from 9 points. With these as a valuable nucleus, the Federal office has developed a Hawaiian section of the climate and crop service of the Weather Bureau, the section center being the Honolulu office of the Weather Bureau. During the past year a great many new instruments of standard pattern have been issued to cooperative observers, at the present writing 142 rainfall and 50 temperature reports being received monthly at the section center. In addition to the increase along these lines, we have secured the cooperation of 63 crop correspondents in various sections of the islands, who render weekly reports on the character of the weather in their respective localities, the effect of this weather on the growing crops, the present condition of the crops and their promise, and the agricultural operations in progress.

From the beginning of the present calendar year the Honolulu office of the United States Weather Bureau has published this climatic and crop information

in the form of 1-page weekly and 10-page monthly bulletins, which are mailed gratis to all interested parties who apply for them.

The weekly bulletin is compiled from the weekly reports of the cooperating crop correspondents, and consists of a single large sheet upon which are printed the remarks of the various correspondents and a general summary of the present crop situation. As the value of this information depends to a great extent upon the promptness with which it is disseminated, the reports, which reach Honolulu on Saturday afternoon or Sunday, are immediately digested, and the printed bulletin is ready for mailing on the following day. The newspapers of Honolulu reproduce the weekly bulletins in extenso, thereby insuring a complete distribution.

The Monthly Bulletin merits a detailed description, as in it we aim to place, in permanent and easily accessible form, complete statistics concerning climate and crop conditions throughout the group. It contains:

(1) In text form, a careful survey of the weather and crop conditions which have prevailed in the various sections of the islands during the month; also temperature, precipitation, and other averages for the separate islands and for the group, with especial reference to the places and times of occurrence of extremes.

(2) In tabular form, records from 50 stations of daily maximum temperatures, daily minimum temperatures, monthly mean temperatures, highest and lowest temperatures and dates of occurrence, greatest daily ranges of temperature, number of clear, partly cloudy, and cloudy days, and prevailing wind directions.

(3) In tabular form, records from 142 stations of daily amounts of precipitation, monthly amounts, departures from normal in all cases where records of sufficient length are available, and greatest twenty-four hour rainfalls during the month.

(4) Four pages of maps, printed in three colors, showing graphically the monthly distribution of temperature, rainfall, and wind direction for each island.

It is the intention of this office also to issue an annual bulletin of monthly and annual values at the close of each calendar year.

During the coming year our work will be developed along the lines indicated by the work of the present year. Ultimately, when sufficient data has been collected, a detailed climatology of the Hawaiian Islands will be written and will issue as a Government publication.

In closing this report, I desire to make public acknowledgment of the many courtesies which have been extended to the Federal Weather Bureau, during the initial year of its existence in the islands, by Governor George R. Carter, by Secretary A. L. C. Atkinson, by Prof. Curtis J. Lyons, and Mr. Robert C. Lydecker (the former Territorial meteorologists), Mr. Walter E. Wall, of the Hawaii Territory survey, and the many cooperative observers and crop correspondents whose voluntary services have been so material to our success.

BANANA INDUSTRY OF HAWAII.

[By H. Vickers.]

The growth of a country depends upon what may be obtained from the soil, and Hawaii affords no exception to this absolute fact. At present we have but one industry, and in view of the governor's opinion, as expressed in his last annual report, wherein he says "with the largely increased world production of sugar, it is only with difficulty that cane can be grown here with profit," it is astonishing to note what little support and encouragement is given the banana industry.

There is perhaps no industry carried on in our district or county in such an irregular and haphazard manner as that of the recently started banana industry. Yet possibly there is no industry that would yield greater profits and do more to increase the prosperity of a town and district, provided it was carried on intelligently and it received only a small quota of the encouragement that our principal industry has received.

With ordinary care in cultivation, intelligent methods in packing and handling, and a semimonthly steamer service, this business could be made in the Hilo district alone to return, within twelve months' time, \$20,000 per month. Our climate is perfect, the soil is excellent for raising the most luscious variety of

bananas, and our nearness to a market is another important advantage. With our natural advantages there is no reason why Hawaii should not be supplying the entire market of the Pacific coast.

Three years ago only 1,700 bunches of bananas were shipped during the whole year. During 1904 the shipments amounted to 45,335 bunches, or an average of 4,533 per month for ten months, the local steamer *Enterprise* making only ten trips in the year. For the year ended June 30, 1905, there were shipped 62,721 bunches. During the first seven months of this year the *Enterprise* made six trips to San Francisco and carried on an average 7,158 bunches, and in one instance there were left over 2,000 bunches. The steamer can carry 7,000 bunches only, while 10,000 bunches are now raised.

The area now planted to bananas, as shown by the records of the Hilo Agricultural Society, is approximately 1,000 acres, sufficient to produce over 20,000 bunches per month. Owing to the inadequate steamer service, and unsatisfactory marketing of the fruit some of the lands have been diverted to sugar cane and pineapples, yet the banana area has increased.

Notwithstanding this rapid growth, the marketing of the crop is in a chaotic condition and the shipping facilities inadequate. The one steamer makes the round trip to San Francisco in five weeks, and, there being no other shipping medium, a large percentage of the crop ripens between trips and is a loss to the growers, who are of various nationalities—American, Japanese, Portuguese, and Hawaiian—and who ship independently to as many commission houses as exist in San Francisco. They ship the fruit in various conditions—overripe, green, diseased, and undersized bunches—and the packing and handling is just as erratic. The natural sequence is universally low prices and an unenviable reputation for the fruit leaving our port.

A very excellent plan for starting the banana industry and placing it upon a firm basis was formulated by leading members of the Hilo Agricultural Society in June, 1904. Had it not been for the difficulty in making growers see that the success of their efforts as growers depended solely upon just such organized plans they would to-day be in an unassailable position, with their industry as firmly established as the sugar industry.

The most urgent need of growers at the present time is for two steamers running between here and the coast on schedule time. This would enable those in the business to ship all their product and would also stimulate the industry.

Certain facts should be made known, not only to the natives and those of other nationalities dwelling in the Territory of Hawaii, but to the people of the mainland, especially those who may be seeking for an opportunity to make a living by cultivating the soil. Here, on Hawaii, the opportunity exists. The Anglo-Saxon will run no risk of being sunstruck in cultivating bananas or pineapples, a danger that is advanced by those who argue that he can not work in cane fields. The demand for bananas has steadily increased until now they are considered one of the staples—a necessity. No other industry can offer greater inducements for settlers, and it is well adapted for people of moderate means.

To illustrate, one small planter's experience will be given. This planter has 4 acres in bananas, and during the six months ended June 30, 1905, he sold for cash 1,000 bunches at an average price of 25 cents per bunch, or \$250 altogether. Had this man 10 acres in bananas his annual income, in spite of the chaotic state of the industry and the consequent low returns, would have been \$1,250. The expense of cultivating the 10 acres, including fertilizer, would be approximately \$300. The labor would be mainly performed by the grower, aided during a portion of the year by an intelligent helper. When the plants have been growing for six months the shade produced reduces the time necessary in weeding by about two-thirds.

There are thousands of acres in our district suitable for growing desirable fruit which might be opened for settlement for a class of people who, were it made known to them, would gladly turn to Hawaii as a desirable place to live in and bring up their children. This locality needs the kind of communities New England gave to the West rather than immigration from foreign-speaking nations.

VANILLA.

[By Edward H. Edwards.]

One of the principal features in connection with the development of the vanilla industry in Kona, Hawaii, during the past year has been the consensus of opinion by experts as to the commercial value of the beans produced in that

locality, and it is gratifying to be able to note that they have been highly commended, both as the result of chemical analysis and by those directly interested in the many uses to which the fragrant bean is applied.

It is not to be expected that the Hawaiian-grown vanilla will at the outset commend itself to the wholesale purchaser of high-class beans in the same ratio as does the firmly established Mexican, for be the quality never so good there is always a prejudice against a new product, be it what it may. But as the Hawaiian vines mature, so will the quality of the bean improve, and seeing that the character of the beans already produced is admitted to be a good second to those which now command the highest price in the American market, it may be inferred without being optimistic that in the near future Hawaiian-grown vanilla beans will hold their own against all comers. The early crystallization that takes place in the locally grown bean is in itself a warrant of its excellent quality; moreover, in every family into which the essence made from this product has been introduced it has "come to stay." Statistics as to the demand for vanilla beans in the United States show that the importations are taking giant strides. In 1903 their value, as passed through the customs, was computed at \$1,032,654; in 1904, \$1,424,647.

The past year may be looked upon as a test of the staying power of the vines in seasons of drought, inasmuch that the Kona district was visited by an abnormal spell of dry weather. The vines themselves did not appear to suffer in any way, but many of the flowers were not as strong as they would have been under ordinary conditions. With the advent of rain the blossoms assumed their usual strength, and the vines commenced to make wood for next year's crop.

Considerable interest is being taken in the industry, both in this Territory and on the coast. The present difficulty is the obtaining of cuttings, many inquirers preferring to wait until they can obtain acclimatized slips instead of importing them. The "Vanilla Park estate," of 98 acres, has recently been incorporated, and 100 acres adjoining are now being cut up into about 5-acre lots to enable the small capitalist and others interested to embark in the enterprise. The whole "Vanilla Valley" has been leased with a right-of-purchase clause, so that the prospect of a vanilla-growing colony in Kona in the not distant future is fairly well assured.

RUBBER INDUSTRY.

[By R. H. Anderson.]

For several years it has been thought by many people in Hawaii that rubber trees could be grown for profit in many parts of the Territory. Seeds have been obtained and planted from time to time, with the result that many of the finest shade trees in Honolulu are rubber trees of the *Ficus* variety.

In 1898 Mr. Hugh Howell, of Nahiku, Maui, obtained some seeds of the *Manihot glaziovii* (Brazilian), and planted them in Nahiku. These seem to be the first trees of any commercial species that have been tried.

In 1904 R. H. Anderson, a tourist familiar with rubber culture, was shown the trees, and found, by tapping them, that they yielded a large amount of rubber, which was pronounced by San Francisco manufacturers to be of superior quality.

Upon this showing several business and professional men in Honolulu purchased about 800 acres of land in Nahiku, and the Nahiku Rubber Company (Limited) was incorporated on January 24, 1905, with a capital stock of \$150,000.

The few seeds immediately available were planted, and in five months some of the plants had attained a height of 7 feet. One hundred thousand seeds (*Manihot glaziovii*) were imported in May, the plants from which are making a satisfactory growth.

Some plants of the *Castilloa nicoyensis* were sent by the Bureau of Plant Industry, Washington, arriving in May. In six weeks these had rooted and attained an average height of 20 inches. Seventeen thousand plants of *Hevea brasiliensis* arrived from Ceylon in June, as well as 500 *Castilloa elastica*. They are growing splendidly, although it is too soon to give measurements.

These four principal commercial varieties seem to grow equally well, showing that the country is adapted for the purpose, and the initial results have encouraged others, so that the Koolau Rubber Company has been incorporated, and many individuals contemplate planting their lands to rubber.

The Nahiku Rubber Company has arranged for continuous shipments of *Hevea brasiliensis* plants from Ceylon, as well as 50,000 seeds in September, so that they expect to have from 100,000 to 125,000 plants by the end of this year. Their intention is to plant their entire acreage within the next two years. As they have secured the services as manager of a man who is familiar with rubber culture, and have ample funds for carrying out their plans, the results within the next two years should prove conclusively whether or not this modern industry is practicable for Hawaii.

The soil at Nahiku is about the same as that of the Mexican plantations. It is better than that of Ceylon and nearly as good as the soil at the mouth of the Amazon. There are 23 men now employed on the plantation, divided between Portuguese and Japanese. When the tapping season comes, about 80 men will be required. The manager has a contract out for clearing 50 acres at a cost of about \$10 an acre, but when it comes to lantana clearing the expense will be \$2 or \$3 greater.

The plantation is situated 6 to 8 miles from Hana landing, to which a road leads.

HAWAIIAN TANNERY ENTERPRISE.

[By G. J. Waller.]

The first export shipment of Hawaiian tanned leathers was made to San Francisco in February, 1905. It was the result of an inspection of samples by two of the largest boot and shoe manufacturing concerns on the Pacific coast. Among the full samples sent were uppers, laces, and other forms of the local product, mostly for the making of uppers for shoes, while valve leather was also forwarded. Two firms immediately sent orders for all the leather that could be exported. The tannery got together about \$700 worth of goods, mostly of the kangaroo and black-sheep variety, and shipped them. Samples were also sent to the Japanese Government, the tannery people believing that the local leathers would make up well in army shoes. A tentative offer was received from Japan for a shipment for trial.

The tannery was started half a year ago at Kalihi, with George Sahlin in charge. Since beginning the new industry the tannery capacity has been twice enlarged.

At the end of the fiscal year, June 30, 1905, the tannery had been in operation less than a year, and, as is customary with manufacturing enterprises, the initiatory period is really no just criterion of what may be expected during subsequent periods, when the proper business bearings have been found and a definite course established.

During the recent operating period we have had to do considerable sounding in the leather markets on the mainland and in the Orient, and the fund of information derived from these inquiries has been both encouraging and profitable. Our circular letters and leather samples have brought responses from very widely-separated points in the United States, and in numerous instances these responses have been accompanied, or followed, by substantial orders.

Besides our local trade we have done business with Fort Worth, Dallas, Denver, Seattle, San Francisco, Los Angeles, and even Boston, the leather market of America, has condescended to praise our goods and favor us with extensive orders—in fact, larger orders than the present capacity of our tannery can supply.

Our sales for the past fiscal period have approximated \$19,000, of which amount about \$6,000 represents leather products of other tanneries which we do not manufacture but carry in stock as an auxiliary line. Aside from these sales our unsold product in finished state amounted to over \$3,500 and our unfinished product to over \$9,000, so that the output of our tannery to the end of June can be safely placed at \$25,000. While the margin of profit arising from this business period was inconsiderable there is still some satisfaction in knowing that it was a profit, and that fact alone ought to act as a stimulus to future efforts in the direction of further development of the industry.

Some facts are now patent to us which at the outset were somewhat obscure. In the first place, the market for leather is assured—quality and price considered, of course—since the demand for leather goods of all kinds exceeds the supply, and consequently the market continues healthy. Then we find that the climatic conditions prevailing here are favorable, while labor conditions are not

unfavorable to the tannery business, as in several stages of the treatment the hides do not require skilled labor.

Our aim is to introduce all the latest methods known to the trade in the manufacture of leather and to produce an article that shall give as good satisfaction, both in appearance and wear, as any similar article manufactured elsewhere, and with the aid of the latest improved machinery we feel confident of accomplishing such results. In speaking of commodities that are scarce, the *Sketch*, an English periodical, says in its number for February 15, 1905:

"The third substance is leather, which we learn from the law courts is sometimes replaced by cardboard, but with unsatisfactory results. The demand for boots and shoes is increasing faster than the supply of properly tanned hides, and the consequence is that imperfect and partially cured skins are too often employed."

From the foregoing we gather much to encourage our local enterprise and feel confident of its becoming a permanent and successful industry.

HONOLULU IRON WORKS.

[By C. Hedemann.]

The Honolulu Iron Works Company was established in 1853 by Mr. D. Weston, the inventor of the suspended centrifugal machine now used in almost all sugar factories. It was first incorporated on December 22, 1876, and reincorporated on December 22, 1896, at which time nearly all the plantation agents in Honolulu became stockholders, and new modern works were erected on land acquired near the harbor front.

The works occupy about 6½ acres and consist of machine, molding, boiler, blacksmith, carpenter, pattern, and coppersmith shops, all of the most modern and improved type, equipped with hydraulic, electric, steam, and compressed-air powers, and electric traveling cranes of 60 feet span in all the principal shops. All the buildings were built and erected by Milliken Brothers, of New York. They are constructed entirely of structural steel material, and the three main shops are each 300 to 400 feet long and 90 feet wide. The number of employees varies from 300 to 600 men, about 8 draftsmen, and a staff of about 15 to 20 clerks and storekeepers.

The large majority of all the new machinery installed in the Territory's sugar factories has been manufactured by the Honolulu Iron Works Company, and all repairs to plantation machinery, pumping plants, steamers and ships, including United States war vessels, have been executed in its shops, excluding almost entirely foreign competition, principally on account of the excellent workmanship, better knowledge of exact local requirements, and reasonable prices. While about a dozen modern mills (crushing plants) of foreign manufacture are at present working in the islands, the Honolulu Iron Works Company has over 30 modern nine-roller mills of their manufacture in operation and 1 twelve-roller mill, besides a number of older types of mills; and they are at present building one 34 by 78 twelve-roller mill to be used in connection with cane cutters and a Krajewski crusher.

They have since 1899 contracted for and wholly or partially designed and built the following modern complete sugar factories in the Hawaiian Islands. The noted cane capacities per diem may be considered present averages as the various mills are worked with different speeds, according to the methods used in the factories, supply of cane, grinding hours, duration of crops, etc.

Oahu, 1,450 tons; Waialua, 1,000 tons; Ewa, 2,000 tons; Olaa, 1,100 tons; Puunene, 2,400 tons; Puako, 200 tons; Hawi, 350 tons; the first five are arranged as far as the buildings are concerned, for increasing the capacity. All of the above factories were recently built except Ewa, which was greatly enlarged, steel buildings were erected over the old wooden ones, and large additional new machinery was installed without delaying or interrupting the continuous working of the old factory. Besides the above, one new factory, to begin with a capacity of 1,000 tons of cane per diem, is now being constructed by the Honolulu Iron Works Company for the Oaxaquena plantation in Mexico, and other new factories are also in hand at present.

As the Honolulu Iron Works Company is located near the plantations, executing all their repair work and building practically now all of their machinery, of whatsoever nature, except such installations as centrifugals, small pumps,

electric plants, and other specialties, it is reasonable to expect that they must have an exceptionally good knowledge of the special requirements of sugar plantations and the proper working of their machinery. It is, however, principally due to the efficient and extensive chemical control in the principal Hawaiian factories that the losses in the various branches of manufacture are being determined and gradually greatly reduced.

RAPID-TRANSIT SERVICE.

[By C. G. Ballentyne.]

During the year ended June 30, 1905, the Honolulu Rapid Transit and Land Company has added to its rolling stock equipment 10 open motor cars of the cross-seat, center-aisle type, each capable of seating 56 persons. They are mounted on maximum traction trucks, and equipped with Westinghouse No. 49 motors, K. 10, controllers and automatic circuit breakers. These cars are being operated on the King street line and add greatly to the comfort of patrons.

During the latter part of 1904 there were erected and equipped with power tools a complete set of workshops, consisting of repair, machine, and blacksmith shops, carpenter shop, and paint shop, where all the company's repair work is now done. These buildings have been substantially constructed, having concrete foundations and floors, and iron walls and roofs, and they are well lighted and ventilated.

In the matter of track construction not very much has been done, the only new work being an extension of the Queen street line from River street to Iwilei road, 895 feet, connecting the system with that of the Oahu Railway and Land Company, and an extension of the King street line from Kamehameha IV road to Kahauliki, 2,300 feet. The War Department having decided upon the establishment of a military post at Kahauliki, the object of this latter extension is to reach that point. This will give the post, which will be situated about 3 miles from the center of the city, a ten-minute service with all parts thereof. It is anticipated that this addition to the system will prove very profitable.

There have been inaugurated a freight and express service, the latter being under the management of the Wells-Fargo Express Company. These additions will be of great convenience to the Honolulu public. Delivery of express matter is made over the entire system twice daily.

It is a well-known fact that the fish which inhabit the waters adjacent to the Hawaiian Islands are among the most beautiful in the world. The wonderful variations in hues and oddity of shapes are very interesting. For the purpose of enabling the people of this city and the strangers who visit Hawaii an opportunity of seeing and studying these wonders of the deep, the company has, with the assistance of some well-disposed friends, erected an aquarium at Kapiolani Park. The property extends from the park road to the beach, and the building, a one-story structure, consisting of three wings and rotunda of artistic design, is located in a grove of beautiful cocoanut palms.

Certain changes made in the routing of the cars have enabled a reduction in the passenger-car service from 25 to 23 cars without in any way impairing its efficiency.

Submitted herewith is a statement showing the financial results of operations for the year ended June 30, 1905:

Passenger-car mileage-----	1, 502, 921. 95
Passengers carried-----	6, 526, 157. 00
Gross earnings-----	\$329, 824. 32
Operating expenses-----	\$202, 437. 27
Net earnings-----	\$127, 387. 05
Fixed charges, including interest on bonds, taxes, etc-----	\$57, 677. 25
Net income-----	\$69, 709. 80
Per cent of operating expenses to earnings-----	61. 39
Per cent of operating expenses and fixed charges to earnings-----	78. 90
Capital stock outstanding-----	\$1, 150, 000. 00
Bonded debt-----	\$690, 000. 00

Statement of monthly earnings and expenses.

Month.	Car mile- age.	Passen- gers car- ried.	Earnings.	Operating expenses.	Net earn- ings.
1904.					
July.....	127,525.26	525,647	\$26,706.25	\$19,864.29	\$6,901.96
August.....	126,694.99	522,337	26,387.65	15,979.86	10,407.79
September.....	128,899.76	543,951	26,741.65	15,779.98	10,961.67
October.....	126,825.25	509,948	28,074.66	16,767.45	11,307.20
November.....	123,527.67	500,478	27,706.80	15,443.76	12,263.04
December.....	123,108.04	576,427	28,730.35	17,021.60	11,708.75
1905.					
January.....	126,734.83	530,868	26,288.90	16,220.30	10,068.51
February.....	115,399.73	503,232	24,951.20	15,092.25	9,858.95
March.....	128,823.41	531,508	26,284.20	16,578.46	9,705.74
April.....	117,090.89	526,106	26,247.65	17,149.27	9,098.38
May.....	129,325.71	572,253	28,501.95	19,799.87	8,702.08
June.....	123,996.41	563,311	28,027.75	16,740.09	11,287.66
Total.....	1,502,921.96	6,526,157	\$24,709.00	\$92,437.27	122,271.73

Net earnings.....	\$122,271.73
Income from other sources.....	5,115.32
Net income after deducting operating expenses.....	127,387.05
Fixed charges, bond interest, taxes, insurance, etc.....	57,677.25
Net income over all charges.....	69,709.80

Very respectfully,

G. R. CARTER,
Governor of the Territory of Hawaii.

THE SECRETARY OF THE INTERIOR.

APPENDIX.

A.—CHAMBER OF COMMERCE APPROPRIATION RECOMMENDATIONS.

HONOLULU, August 14, 1905.

SIR: The chamber of commerce respectfully asks that in your annual report you call attention to the following matters of importance requiring Federal assistance:

LIGHT-HOUSES.

Mid-Pacific commerce of great value demands that the dangerous points of navigation in this Territory should be attended to. This would require the following very necessary appropriations:

New front and rear range lights in Honolulu Harbor.....	\$40,000
A first-order light at Makapu Point, Oahu.....	60,000
Storehouse and wharf at Honolulu.....	40,000
Third-order light at Kalaupapa, Molokai.....	40,000
First-order light at Mana Point, Kauai.....	60,000
For lights throughout the group, necessary for interisland and coastwise traffic.....	120,000
Total.....	360,000

HONOLULU HARBOR.

The former appropriation of \$400,000 for dredging Honolulu Harbor is but for a portion of a very necessary work. This work should be continued until the plan as approved by Congress is completed.

PEARL HARBOR.

That Congress authorize the preparation of complete survey and plans for the improvement of Pearl Harbor.

FORTIFICATIONS.

For the purchase of additional fortification sites there will be required the sum of \$150,000. This Territory is without any fortifications whatsoever, and taking into consideration the time required to complete these works we think that the sum of \$1,500,000 should be asked for to start the construction of 12-inch mortar and 12-inch rifle batteries at Honolulu and Pearl Harbor.

REVENUE CUTTER.

The revenue service should be assisted in its work by having a revenue cutter stationed at Honolulu. This would require an appropriation of \$325,000.

FEDERAL BUILDINGS.

All districts of the Territory attest to the want of buildings. We recommend an earnest attempt to procure Federal aid in this matter.

HARBOR DEFENSE.

Until the establishment of fortifications, we think that a coast defense or other vessel of war should be detailed for permanent service at Honolulu. A request should also be made that there should be quartered at Honolulu sufficient troops for defense of the Territory or to be drawn on for foreign service.

HILO HARBOR.

That authority be obtained from Congress for the preparation of survey and plans for improvement of said harbor in accordance with preliminary examinations made in compliance with river and harbor act, approved March 3, 1905.

IRRIGATION.

That irrigation surveys now authorized by law under the Department of Agriculture and Geological Survey be extended to Hawaii.

LAND RETURN.

That the return of the property to the Territory of Hawaii, known as the barracks lot on Hotel and Miller streets, be consummated.

In conclusion we suggest that as this Territory contributes to the Federal Government annually a very large amount of revenue, we think that until needed improvements are made here, at least the amount of our revenues be spent here annually.

[SEAL.]

HONOLULU CHAMBER OF COMMERCE.
By E. D. TENNEY, *President*.
JAS. GORDON SPENCER, *Secretary*.

A. L. C. ATKINSON, Esq.,
Acting Governor, Territory of Hawaii.

B.—MERCHANTS' ASSOCIATION OF HONOLULU.

HONOLULU, *September 16, 1905.*

SIR: The Merchants' Association of Honolulu, in reply to the letter addressed to the association by Acting Governor Atkinson and under date of July 19, beg to state that the following are the most pressing requirements of the mercantile community and are essential to the maintenance and advancement of the entire population of the Territory of Hawaii.

First. A Federal building which will accommodate the departments of customs, post-office, judiciary, and administrative bodies in a convenient form for officials and public, and in a manner befitting the dignity of the departments of state represented therein. This need should be given preference to all others from the fact that the post-office is now inadequate, small, and crowded; the custom-houses, composed of a series of buildings erected at different times in the history of Hawaii and inconveniently arranged; the district court and United States Federal court, having since annexation occupied quarters belonging to the Territory which is needed by the local courts.

Second. The establishment of a naval station at Pearl Harbor, with a dry dock, and the opening up of these waters to the extent of bringing them in practical use for naval and merchant vessels.

Third. The construction of a breakwater at Hilo, the only possible harbor on the large productive island of Hawaii, the construction of which would secure a permanency of prosperity in general commercial and shipping circles.

Fourth. A revenue cutter, for the purpose of giving a reasonable protection to the large American interests in and about the Territory. The islands should at no time be without the services of a revenue cutter, and we can not refrain from urging the very grave importance of stationing such a vessel at Honolulu at the earliest possible date.

Fifth. A Federal experimental station. This we regard as of vital importance to the future welfare of the Territory, it being essential to the development of general business in the islands that new agricultural enterprises be inaugurated and encouraged, particularly with crops other than produced here—as sugar, rice, and coffee—and to this end we recommend a large increase of funds.

Sixth. A military post. The small number of men maintained in Honolulu is entirely inadequate and out of proportion for its needs. We understand that the Secretary of War, Hon. William H. Taft, favors an increase in the number of men to be stationed here, and we respectfully suggest that no better experience could be given to those troops intended for service in the Tropics than an assignment to duty at this port for a short time.

Seventh. Fortification. We are informed that certain recommendations made by the United States military experts are being acted upon. It is of great importance to have these defenses fully equal to the grave question of our isolated location in the midst of the Pacific. We believe the great safeguard against war is being prepared, and we respectfully urge upon Congress to the end that these works of defense be pushed to completion.

Eighth. Mosquito pest. From first appearances this may be considered a matter for local control and one in which the Federal Government should take no interest, but we claim our peculiar location and the large quantity of shipping that touches our port exposes us to exceptional danger. Already the Navy Department has made one station at Honolulu, forming with San Francisco and Panama a triangular course for its vessels. It is well known that the species of mosquito that carries yellow fever exists in Honolulu, but it is harmless until the yellow fever arrives here; and in view of the probability in the near future of frequent calls being made at this port by vessels from Central American ports we consider this a question of great national importance and one in which it would be eminently proper for the Marine Hospital and Quarantine Service to assist. Much valuable work has already been rendered in the local campaign against mosquitoes. We believe, in conjunction with the Federal authorities, this pest could be practically exterminated.

We trust the foregoing Territorial needs may be secured at an early date, and thanking you for the opportunity of making public our views,

Very respectfully,

GEO. W. SMITH, *President.*

HON. GEORGE R. CARTER,
Governor Territory of Hawaii.

C.—TERRITORIAL REGISTER AND DIRECTORY FOR 1905.

TERRITORIAL OFFICIALS.

EXECUTIVE.

George R. Carter, governor.
A. L. C. Atkinson, secretary.
Lorin Andrews, attorney-general.
A. J. Campbell, treasurer.
J. H. Fisher, auditor.
C. S. Holloway, superintendent of public works.
J. C. Davis, superintendent of public instruction.
J. W. Pratt, commissioner of public lands.

W. E. Wall, surveyor.
L. E. Pinkham, president board of health.
William Henry, high sheriff.
F. D. Creedon, private secretary to governor.
Alex. Craw, superintendent of entomology.
R. H. Hosmer, superintendent of forestry.

J. K. Kalanianaʻole, Delegate to Congress.

JUDICIAL.

W. F. Frear, chief justice, supreme court.
A. S. Hartwell, associate justice, supreme court.
A. A. Wilder, associate justice, supreme court.
Henry Smith, clerk, judiciary department.
J. T. De Bolt, first judge, first circuit, Oahu.
Alex. Lindsay, jr., second judge, first circuit, Oahu.

W. J. Robinson, third judge, first circuit, Oahu.
A. N. Kekoikai, judge, second circuit, Maui.
J. A. Matthewman, judge, third circuit, Hawaii.
Chas. F. Parsons, judge, fourth circuit, Hawaii.
J. Hardy, judge fifth circuit, Kauai.
P. L. Weaver, judge, court of land registration.

LEGISLATIVE.

Senators :

Hawaii—J. T. Brown, G. C. Hewitt,
J. D. Paris, Palmer P. Woods.

Kauai—J. K. Gandall, S. W. Wilcox.

Mau—C. H. Dickey, A. N. Hayselden, S. E. Kalama.

Oahu—W. C. Achi, E. F. Bishop,
J. M. Dowsett, D. P. R. Isenberg,
John C. Lane, L. L. McCandless.

Representatives :

Hawaii—A. Fernandez, F. R. Greenwell, H. L. Holstein, H. M. Kaniho, J. D. Lewis, Chas. H. Pulaa, W. H. Shipman, Carl S. Smith.

Representatives—Continued.

Kauai—Eric A. Knudsen, Geo. W. Mahikoa, Chas. A. Rice, W. J. Sheldon.

Mau—W. J. Coelho, Geo. Copp, W. P. Hala, John Kallno, P. Pali.

Molokai—M. K. Nakuina.

Oahu—Frank Andrade, R. W. Aylett, Chas. Broad, Oscar P. Cox, W. W. Harris, Theo. H. Kalawala, A. S. Kalelopu, E. K. Lillikalani, Carlos A. Long, Sol. Mahelona, E. W. Quinn, F. T. P. Waterhouse.

FEDERAL OFFICIALS.

DEPARTMENT OF JUSTICE.

United States district court :

Sanford B. Dole, presiding judge.
R. W. Breckons, United States district attorney.

J. J. Dunne, assistant United States district attorney.

United States district court—Cont'd.

E. R. Hendry, United States marshal.

W. B. Maling, clerk.

TREASURY DEPARTMENT.

Customs Division :

E. R. Stackable, collector of customs.

R. C. Stackable, special deputy collector.

Raymer Sharp, chief examiner.

A. B. Ingalls, examiner and gauger.

M. H. Drummond, deputy collector and cashier.

C. H. Raven, deputy collector.

W. O. Aiken, deputy collector, Kahului, Maui.

J. C. Ridgway, deputy collector, Hilo, Hawaii.

W. D. McBryde, deputy collector, Koloa, Kauai.

E. A. Fraser, deputy collector, Mahukona, Hawaii.

Internal-Revenue Service :

R. H. Chamberlain, collector internal revenue.

H. D. Couzens, chief deputy collector.

W. F. Drake, division deputy.

R. S. Johnstone, deputy and gauger.

Public Health and Marine-Hospital Service :

L. E. Cofer, passed assistant surgeon, U. S. M. H. S., in command.

W. C. Hobdy, passed assistant surgeon.

C. Ramus, assistant surgeon.

A. N. Sinclair, acting assistant surgeon.

Miss E. F. Smith, acting assistant surgeon.

C. Slough, pharmacist.

John J. Grace, acting assistant surgeon, Hilo, Hawaii.

John Weddick, acting assistant surgeon, Kahului, Maui.

J. B. Molony, acting assistant surgeon, Lahaina, Maui.

R. C. McLean, acting assistant surgeon, Koloa, Kauai.

B. D. Bond, acting assistant surgeon, Mahukona, Hawaii.

DEPARTMENT OF COMMERCE AND LABOR.

Immigration Service:

F. M. Bechtel, inspector in charge.
 J. K. Brown, Chinese inspector.
 R. C. Brown, immigrant inspector.
 G. R. Cullen, immigrant inspector.
 R. L. Halsey, immigrant inspector.

United States Light-House Establishment:

Lieut. Commander A. P. Niblack,
 assistant to inspector Twelfth
 district.

Coast survey division:

W. D. Alexander, assistant in
 United States Coast and Geo-
 detic Survey, in charge of branch
 office.

Navigation bureau:

Norman Watkins, United States
 shipping commissioner.

DEPARTMENT OF AGRICULTURE.

Hawaii experimental station:

Jared G. Smith, expert and special
 agent in charge.
 D. L. Van Dine, expert and special
 agent.

Weather bureau:

A. McC. Ashley, section director.

POST-OFFICE DEPARTMENT.

Postal service, Hawaii:

Joseph G. Pratt, postmaster.
 L. T. Kenake, assistant post-
 master.
 F. E. Colby, chief clerk, money-
 order department.
 Wm. McCoy, sr., chief clerk, reg-
 istry department.

Postal service, Hawaii—Continued.

W. C. Kenake, chief mailing clerk.
 E. M. Brown, superintendent of
 delivery.
 I. J. Hare, inspector in charge.
 George W. Carr, assistant super-
 intendent railway-mail service.

NAVY DEPARTMENT.

United States marine barracks:

Maj. B. F. Fuller, U. S. M. C.,
 commanding marines.
 First Lieut. W. C. Harlee, U. S.
 M. C.

United States naval station, Hawaii:

Capt. H. W. Lyon, commandant,
 U. S. Navy.
 Lieut. Commander A. P. Niblack,
 U. S. Navy.

United States naval station, Hawaii—
Continued.

W. E. Taylor, surgeon, U. S. Navy,
 medical inspector.
 P. S. Rossiter, assistant surgeon,
 U. S. Navy.
 A. S. Brown, assistant paymaster,
 U. S. Navy.
 O. G. Haskett, pay clerk, U. S.
 Navy.

WAR DEPARTMENT.

United States military in Hawaii:

Maj. Robert C. Van Vleet, com-
 manding.
 Capt. C. F. Humphrey, quarter-
 master, U. S. Army, depot
 quartermaster and commissary.
 Capt. John D. Yost, assistant sur-
 geon, U. S. Army, military hos-
 pital.

United States military in Hawaii—
Continued.

Capt. R. L. Bush.
 First Lieut. Jas. G. Hannah.
 First Lieut. Jas. S. Young, jr.
 First Lieut. J. B. Shuman.
 Second Lieut. M. M. Garrett.
 Second Lieut. M. A. Wells.
 C. S. Baker, contract surgeon.

Oversized Foldout

5
255
17

910.1

REPORT

UNIV. OF MICH.
FEB 14 1906

OF THE

GOVERNOR OF THE TERRITORY OF HAWAII

TO THE

SECRETARY OF THE INTERIOR.

1906.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1906.

REPORT

OF THE

GOVERNOR OF THE TERRITORY OF HAWAII

TO THE

SECRETARY OF THE INTERIOR.

1906.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1906.

CONTENTS.

	Page.
Introduction	5
General subjects.....	5-22
Educational.....	5
Economic conditions.....	7
Population.....	12
Registration of voters.....	12
Fisheries.....	13
Legislative work in Hawaii.....	17
Permanent settlements.....	18
Fire claims.....	18
Chinese fund.....	19
Hawaiian coinage.....	19
Postal savings bank depositors.....	19
Study of leprosy.....	20
Finances.....	20
Needed legislation.....	22
Articles on the various departments of Federal work in the Territory.....	23-40
Agricultural experiment work.....	23
Federal quarantine problems.....	28
Improvement of harbors.....	30
Shipping at Honolulu.....	32
Post-offices.....	33
Immigration business.....	34
Internal revenue.....	35
United States district attorney.....	35
The Federal court.....	36
Federal climatological service.....	38
Progress of various enterprises.....	40-57
Hawaii's transportation facilities.....	40
Oahu Railway and Land Company.....	44
Irrigation in Hawaii.....	45
Electric installation in the Territory of Hawaii.....	48
Agriculture and forestry.....	51
Descriptions of the counties.....	57-70
County of Hawaii.....	57
County of Maui.....	61
County of Oahu.....	64
County of Kauai.....	68
Reports and descriptions of the various departments.....	71-120
Department of public instruction.....	71
Survey department.....	74
Public lands and their administration.....	78
International health work of Hawaii.....	93
Forest reserves.....	97
Department of public works.....	98
Finances.....	108
The attorney-general's department.....	113
High sheriff's bureau.....	117
Archives of Hawaii.....	118
Appendix.....	121-122
Territorial register and directory, 1906.....	121
Territory of Hawaii:	
Map of Kahoolawe.	
Map of Kauai.	
Map of Lanai.	
Map of Maui County.	
Map of Molokai.	
Map of Niihau.	
Map of Oahu.	

REPORT OF THE GOVERNOR OF THE TERRITORY OF HAWAII.

EXECUTIVE CHAMBER,
Honolulu, Hawaii, October 31, 1906.

SIR: I have the honor to submit herewith my annual report on Hawaiian affairs for 1906:

GENERAL SUBJECTS.

EDUCATIONAL.

Among the most important problems in Hawaii is that of education, and the article contributed by Mr. Babbitt, superintendent of public instruction, is of special importance. It indicates two pressing needs of the public schools, namely, increased accommodations for pupils and better pay for teachers. At the end of the fiscal year there was an attendance of more than 16,000 in the public schools and of more than 5,000 in the private schools (including the kindergartens). Notwithstanding the great relief afforded by the private schools to the situation, there is still much congestion in the crowded districts, and there are frequent calls for schools in the newer settlements not yet supplied with accommodations. From data furnished by the educational department not included in the superintendent's article, the following table, relating to public school accommodations, is compiled. "Number of schools" does not refer to buildings, for many schools have groups of structures, and in many country sections there are detached cottages for teachers. The values given cover all buildings in each case. Lahainaluna, on Maui, is the leading school in the Territory which affords industrial as well as ordinary education, other than the reformatory institutions for girls and boys on Oahu, and its group includes printing, carpenter, and blacksmith shops, besides cow shed and barn.

Under the head of values the figures are derived from contract prices with regard to recently erected structures and from estimated present valuations in the case of older buildings. There are five schools in Honolulu having structures of an average value of \$36,579 each, all but one of them being modern edifices of fireproof materials.

Here is the table to which reference has been made:

County.	Schools.	Rooms.	Average rooms.	Value of build- ings.
Hawaii.....	60	144	2.4	\$142,440
Maui.....	42	72	1.714	141,994
Oahu.....	33	179	5.424	294,105
Kauai.....	17	53	3.117	54,612
Total.....	152	448	3.163	633,151

These figures would show an average of 106 pupils to a school and of 36 to a room. The most costly building on Oahu is that of the Normal School, valued at \$48,781, the next being that of the Royal School, a splendid structure of 21 rooms, valued at \$42,515. On Hawaii, the Hilo Union School has the highest valued building, at \$12,100, but a handsome structure for the newly established Hilo High School is under construction. Maui has Lahainaluna, with buildings valued at \$41,959, with Wailuku High School second in new buildings, worth \$24,845. Kauai's best group is at Lihue, the county town, schoolhouse and cottages being valued at \$8,185. Tho without many pretentious buildings, Kauai has more adequate accommodations, for the number of children, than any other county.

Much satisfaction should be taken from the superintendent's statement about the interest that is being taken by teachers and pupils in the beautifying of school grounds. It is a matter of gratification, too, that manual training steadily advances. Mr. Babbitt touches upon a matter that has been much discust of late years when he declares that "the need of an agricultural and industrial college is becoming more and more apparent." Lahainaluna school has attained a creditable status in agricultural and industrial training. This is the oldest public school in the Hawaiian Islands, having been started by the earliest American missionaries more than seventy years ago and coming, in later times, under the public school system. Great results have been obtained from practical farming by the boys' industrial school at Waialeale, Oahu, which has taken the place of a reformatory school in Honolulu, but with larger purposes and a greater scope. Upon the lower lands of the school reservation by the seacoast the boys take care of livestock and raise from the soil a large proportion of the school's food supply, even a surplus of some products, besides growing sugar cane for sale under contract to a neighboring sugar mill. Just now the school force is about to begin the cultivation of Irish potatoes, pineapples, corn, etc., upon an extensive upland section. The boys have helped, with their labor in various trades, to finish the buildings of the school, besides making a goodly portion of the furniture and fixtures. When so much can be accomplished with city street arabs, under detention for their own good, the possibilities of success for an agricultural and industrial college, filled with voluntary students, ought not to be problematical other than with respect to means for its establishment. Agriculture is practically the exclusive basis of Hawaii's wealth, and so long as the rising generation, in large proportion, is not being bred to cultivation of the soil, thus far a serious lack in the educational system will be perpetuated.

Mr. Babbitt lays stress upon the fact that there have been decreases in the school attendance of children of pure Hawaiian and American blood—more than 58 per cent of the former and more than 40 per cent of the latter—while the attendance of Japanese children has increased more than 58 per cent. Possibly the decreases may be partly accounted for by the necessity of dispensing with truant officers, because of lack of funds. As to American children, no doubt the diminished attendance is considerably due to the departure of many American families upon the ending of a period of great building activity. There is nothing to deplore in the increase of Japanese children. The Japanese are here probably in large proportion to remain. Their natural increase has been very great, and, as eight

years have elapsed since annexation, a large number of the Japanese children now crowding into our schools have been born under the American flag. When these reach maturity, they will have the right of claiming American citizenship. It is therefore most important that they should have full opportunity of becoming equipped with the knowledge and habits of thought requisite to good American citizenship. Apart from that consideration it must be conceded that it is the inalienable privilege of every child under protection of the flag to enjoy the benefits of that public school system which is one of the chief glories of the American Commonwealth and which, moreover, Hawaii took as an ideal long before admission and continues, as a part of the Union, with best endeavors to maintain.

ECONOMIC CONDITIONS.

Commercially, it has been a fairly but not particularly prosperous year for Hawaii. In the matter of sugar, the chief staple, there was a combination of decreased production and diminished prices. Thus, whereas the value of shipments fell short of that of the year before by \$9,616,721, had the average prices (for raw and refined) of 1905 continued the deficiency in valuation would have been less than \$3,500,000. So the low condition of the market is responsible for more than \$6,000,000 of the deficiency. Refined sugar is now only for the second year on Hawaii's list of exports, there being but one plantation on the islands turning out the article from its factory. The product found a ready market on the mainland from the first, and the second year's output shows an increase of more than 6,400 tons. Here is a comparative statement of the shipments of sugar for the past two years:

	1905.			1906.		
	Pounds.	Price per pound.	Value.	Pounds.	Price per pound.	Value.
		<i>Cents.</i>			<i>Cents.</i>	
Raw.....	811,603,329	4.19	\$33,946,040	712,560,997	3.35	\$23,840,803
Refined.....	21,118,308	5.52	1,166,108	34,041,640	4.86	1,654,624
Total.....	832,721,637		35,112,148	746,602,637		25,495,427
Decrease.....				86,119,000		9,616,721

Being, on the basis of the 1900 census, a falling off of \$62.44 per capita in the Territory's increment of wealth from its chief industry.

Quantity and value of sugar exported for ten years.

Year ended June 30—	Pounds.	Value.	Price per pound.
			<i>Cents.</i>
1897.....	431,196,980	\$13,164,379	3.05
1898.....	499,766,798	16,660,109	3.33
1899.....	462,299,880	17,287,683	3.72
1900.....	504,713,105	20,392,150	4.05
1901.....	690,877,934	27,093,863	3.92
1902.....	720,553,357	24,147,884	3.35
1903.....	774,825,420	25,665,733	3.31
1904.....	736,491,992	24,359,385	3.30
1905 (raw).....	811,603,329	33,946,040	4.19
1905 (refined).....	21,118,308	1,166,108	5.52
1906 (raw).....	712,560,997	23,840,803	3.35
1906 (refined).....	34,041,640	1,654,624	4.86

Thru the courtesy of the Department of Commerce and Labor, Bureau of Statistics, the following tables of Hawaii's trade are presented:

Principal domestic articles shipped from the United States to the District of Hawaii, with values, for the fiscal year ended June 30, 1906.

Domestic articles.	Value.	Domestic articles.	Value.
Agricultural implements.....	\$22,635	Naval stores.....	\$10,991
Aluminum, and manufactures of....	9,587	Oils:	
Animals.....	115,197	Animal.....	1,281
Books, maps, engravings, etc.....	58,037	Mineral.....	1,238,530
Brass, and manufactures of.....	24,366	Vegetable.....	31,181
Breadstuffs.....	1,472,230	Paints, pigments, and colors.....	97,521
Cars, carriages, etc., and parts of....	101,721	Paper, and manufactures of.....	176,705
Automobiles, and parts of.....	107,266	Plated ware.....	24,859
Cement.....	22,133	Provisions, meat, and dairy products	587,334
Chemicals, drugs, and dyes.....	213,245	Rice.....	184,863
Clocks and watches.....	14,455	Silk, manufactures of.....	39,539
Coal and coke.....	59,379	Soap.....	87,062
Coffee.....	11,029	Spirits.....	146,784
Copper, and manufactures of.....	29,306	Malt liquors.....	85,053
Cork, manufactures of.....	10,571	Wines.....	309,118
Cotton, manufactures of.....	872,332	Straw and palm leaf, manufactures	
Fertilizers.....	611,583	of.....	28,864
Fibers and grasses, manufactures of....	101,843	Sugar and molasses.....	61,542
Fish.....	247,954	Candy and confectionery.....	31,948
Fruits and nuts.....	138,495	Tin, manufactures of.....	25,352
Glass and glassware.....	88,305	Tobacco, manufactures of.....	494,818
Gunpowder and other explosives.....	78,502	Toys.....	18,020
Hay.....	132,123	Trunks and traveling bags.....	15,575
India rubber, manufactures of.....	94,614	Vegetables.....	157,370
Instruments, scientific.....	71,241	Wood:	
Iron and steel, and manufactures of....	1,380,414	Lumber.....	625,218
Jewelry.....	99,796	Manufactures of.....	189,032
Lead and manufactures of.....	17,822	Wool, manufactures of.....	192,852
Leather, and manufactures of.....	307,848	All other articles.....	274,848
Lime.....	81,590		
Matches.....	14,280		
Musical instruments.....	45,196	Total.....	11,771,155

Customs districts from which shipped.

District.	Value.	District.	Value.
San Francisco, Cal.....	\$10,232,370	Los Angeles, Cal.....	\$46,300
Puget Sound, Wash.....	1,206,367	Willamette, Oreg.....	28,000
New York, N. Y.....	132,156	Philadelphia, Pa.....	18,420
Humboldt, Cal.....	47,542		

Shipments of domestic merchandise from Hawaii to the mainland of the United States for the fiscal year ended June 30, 1906.

Articles.	Pounds.	Value.
Coffee, pounds.....	2,147,279	\$248,618
Fruits, preserved.....		155,103
Green, ripe, dried.....		131,806
Other.....		694
Hides and skins.....	1,136,994	126,425
Honey.....		34,048
Iron and steel, and manufactures of....		67,464
Jewelry.....		18,916
Leather, manufactures of.....		22,116
Rice.....	5,739,500	223,012
Sugar:		
Raw.....	712,560,997	23,840,803
Refined.....	34,041,640	1,654,624
Other.....		187
Tallow.....	178,942	7,046
Wool.....	313,366	45,883
All other articles.....		273,718
Total.....		26,850,463

REPORT OF THE GOVERNOR OF HAWAII.

9

Shipments of domestic gold and silver between the United States and Hawaii.^a

Gold and silver.	Twelve months ended June 30, 1906.	
	From United States to Hawaii.	From Hawaii to United States.
Gold:		
Bullion, refined.....	\$1,050	
Coin.....	326,500	\$50,000
Silver, coin.....	347	5,312
Total.....	327,857	55,312

^a Carried in American steam vessels.

Total value of all articles imported from and exported to foreign countries for the fiscal year ended June 30, 1906.

Country.	Imports.	Exports.	Country.	Imports.	Exports.
Belgium.....	\$6,806		West Indies, British.....	\$92	
France.....	9,732		Chile.....	448,608	
Germany.....	171,497	\$391	China.....	3,984	\$2,778
Italy.....	1,366		East Indies.....	415,131	
Netherlands.....	3,429		Hongkong.....	245,214	2,004
Norway.....	208		Japan.....	1,247,470	20,080
Portugal.....	484		Korea.....	20	
Spain.....	3,850		Australasia.....	262,594	8,348
Sweden.....	3		Oceania.....	1,182	742
United Kingdom.....	424,976	5,512	Philippines.....	6,051	2,155
Canada.....	22,501	15,303	Total.....	3,275,212	57,313
Panama.....	12		Year ended June 30, 1905...	3,014,964	59,541
Peru.....	2				

Tonnage movement in trade with Hawaii.

NUMBER AND TONNAGE OF VESSELS CLEARED FROM THE UNITED STATES TO HAWAII.

Vessels and customs districts.

	Twelve months ended June 30, 1906.	
	Number.	Tons.
American:		
Sailing.....	164	149,099
Steam.....	93	232,148
Total.....	257	381,247
From New York, N. Y.....	1	961
From Philadelphia, Pa.....	2	4,404
From Humboldt, Cal.....	3	899
From Oregon, Oreg.....	3	2,576
From Puget Sound, Wash.....	59	91,585
From San Francisco, Cal.....	188	279,006
From Willamette, Oreg.....	1	1,816

NUMBER AND TONNAGE OF VESSELS CLEARED FROM HAWAII TO THE UNITED STATES.

American:		
Sailing.....	224	229,849
Steam.....	114	378,974
Total.....	338	608,823
Foreign:		
Sailing.....	7	10,443
Steam.....	1	1,284
Total.....	8	11,727
American and foreign:		
Sailing.....	231	240,292
Steam.....	115	380,238
Total.....	346	620,550

For many years rice has been second in Hawaiian domestic exports, while also supplying a considerable home demand. Much was consumed on the sugar plantations when Chinese formed a great proportion of the labor, and since Japanese have come to predominate there the same is true of them. But the latter prefer the rice grown in Japan, and next to that Louisiana rice, over the Hawaiian article. They say that the island rice does not keep palatable after cooling as well as the others, one reason given for this being lack of an essential oil due to excessive cropping. Two crops a year are raised in Hawaiian rice fields against one in Japan and the Southern States. Here the cultivation of rice has always been in Chinese hands, and the diminution of their numbers accounts for the decline of this export. Rice shipments, however, show a goodly increase for the past over the previous year.

A very gratifying feature of the commercial statistics for two or three years past has consisted of increased shipments of various domestic products, some of them being entirely new in Hawaiian exports. Our most excellent coffee is gradually forging ahead in the mainland market. Honey shows a steady increase. Preserved fruits are making veritable strides in amount shipped, the particular staple thus far being pineapples. New pineapple-raising companies have been incorporated in the last year, while some of the older ones have enlarged their canning factories. Incidental to the pineapple industry, a large factory for the manufacture of cans has been started in Honolulu.

Under the auspices of the United States Experiment Station measures have been taken for the proper care and marketing of Hawaiian fresh fruits, with San Francisco as a distributing base, which it is confidently expected will put an end to difficulties wherewith this portion of Hawaii's export trade heretofore has been handicapped. An experiment made in sending packages of the more perishable of Hawaiian fruits to the governors of Washington, Oregon, Montana, Colorado, and Idaho, and to the representatives of commercial bodies in those States, has proved that markets far inland from the Pacific coast may be supplied with various of our luscious subtropical fruits in natural state and in perfect condition. Samples of fresh Hawaiian pineapples have been exprest even to Washington, D. C., and New York, arriving in prime condition.

One of the new products appearing in the trade statistics herewith is sisal fiber. Experts have pronounced the Hawaiian article to be of the very best. The sisal shrub thrives on lands that will produce few other growths of value as well as in good agricultural soil. There are considerable areas in the islands available for its production, and the only present hindrance to the rise of a large fiber industry here is the slowness of capital to grasp the opportunity. Another export that will appear in the returns within a few years is crude rubber. Several incorporated companies are now operating rubber plantations, a large area in the aggregate being under cultivation and the tree growths highly promising of good yields. Tobacco is also very likely soon to appear. Experiments made on a large scale by the Federal agricultural station management have produced tobaccos of excellent merchantable qualities, a considerable output of the experimental farm having been taken by a Seattle cigar manufactory. Expert tobacco planters have in the meantime taken up lands for raising the article.

Recently the tentative starting of a steamship line from Portland, Oreg., to Honolulu and Hilo has greatly inspired hopes of an extensive new market for our minor products. The commercial bodies of the three cities just named have taken up the matter of promoting trade between the northwest coast and the islands. Much is being said also about a mooted project of steamship communication between San Pedro, Cal., and Honolulu. This is regarded as a desirable tourist route. It would be in line with a vigorous campaign for attracting visitors and home seekers, which is being carried on by the Hawaii Promotion Committee, an organization at present supported by the merchants of Honolulu, but which has attained such public importance and appreciation that the two great political parties recommend, in their current election platforms, that it be maintained from the Territorial treasury. There is no gainsaying the statement that no other country upon the globe has superior attractions, either for summer or winter residence, to offer people who desire a respite from the extremes of heat and cold, which elsewhere are suffered. With its climatic advantages Hawaii also presents great scenic beauties, and withal it offers practically every modern auxiliary of human convenience and comfort.

There is a large internal commerce of which no mention is made in official trade returns. For the year ended June 30, 1906, the steamers of the Inter-Island Steam Navigation Company carried 52,269 passengers and approximately 306,641 tons of freight. The company has a fleet of fifteen or sixteen steamers, those upon the chief passenger routes being modernly equipped.

The large ocean freight carriers of the American-Hawaiian Steamship Company, plying between New York, the Isthmus of Tehuantepec, Honolulu, and Pacific coast ports, load sugar at Kahului on Maui, also sometimes at Hilo on Hawaii, as well as Honolulu. In this connection it may be said that the Hawaiian Commercial and Sugar Company is completing the construction of a breakwater at Kahului, which will make of the magnificent bay there a commodious and safe harbor.

Our needs are so insignificant compared with the great subjects before Congress, and our voice comes from such a distance, that little attention is paid to what the national legislators regard as merely local improvements. Thus it is that private enterprise has to perform here that which is done for every other community by public action. The hopes of the people were raised following annexation that the Federal Government would take hold of Hilo's harbor, and as the years roll by disappointment increases. There is a sign now, however, of some work being done, as a preliminary survey has just been made.

Hilo has a very considerable deep-sea commerce despite its disadvantage of undefended exposure to ocean swells. Besides the Portland line already mentioned, Hilo has direct steamship communication with San Francisco. With a breakwater it would undoubtedly become a great port of commerce. There and at adjacent landings now a large proportion of the sugar yield of the islands is transshipped to Honolulu for export. Direct shipments thence to market would be a great economy. No doubt the creation of a safe harbor at Hilo would vastly promote trade with both the mainland and foreign countries. While the construction of a breakwater there would be

a splendid local benefit, it would at the same time be more justly classified as a work of national importance. Moreover, it would really cost the United States nothing, for the revenues yielded by a good harbor at Hilo would quickly overtake the expenditure in its construction.

POPULATION.

Taking as a basis of computation the figures of school attendance, there is shown an increase of 55,000, or about 35 $\frac{1}{2}$ per cent in the population of the Territory since last census. Between 1896 and 1900 the increase in population was 44,981, or 41.2 per cent. The estimate of population on June 30, 1906, based on the ratio of school enrollment to population in 1900, is shown in the following table:

Islands.	School attendance.		Population.		
	1900.	1906.	Census, 1900.	Estimate, 1906.	Increase.
Hawaii.....	4,425	5,686	46,843	60,192	13,349
Maul, etc.....	2,806	4,001	27,920	39,810	11,890
Oahu.....	6,615	9,199	58,504	81,357	22,853
Kauai.....	1,691	2,257	20,734	27,673	6,939
Total.....	15,537	21,143	154,001	209,032	55,031

REGISTRATION OF VOTERS.

Vitally related to the population is the numerical status of the electorate. It may be calculated from the following statistics of registration and voting that the ratio of increase of voters has been considerably less than that of school enrollment increase. While the increase on the school rolls for six years has been 36 per cent, that on the electoral registers, taking the two years below compared as a basis, would be only about 20 per cent for a like period. So, if the increase of voters were taken as the basis for an estimate of the population, it would show a population to-day of but 184,662, or an increase of less than 31,000. As, however, common observation and knowledge is convincing of the fact that the proportion of children arriving at school age in the Territory for several years past has been far in excess of the proportion of citizens arriving at voting age and of persons eligible for the franchise arriving from outside combined, it is safe to choose the school rather than the electoral statistics as a basis for estimating the population.

As between 1902 and 1904 the increase of registered voters has been 837; taking such as a normal vote would give an increase in six years of 2,501. The following tables give registration and voting figures for 1902 and 1904, those for voting being imperfect except in the vote cast for Delegate to Congress. Districts are those for the election of representatives to the Territorial legislature:

District.	Registration by districts.		Number of votes cast.	Vote for Delegate.	
	1902.	1904.	1902.	1902.	1904.
First.....	1,546	1,614	1,478	1,431	1,448
Second.....	1,450	1,533	1,384	1,315	1,305
Third.....	2,303	2,641	2,034	1,913	2,310
Fourth.....	3,382	3,517	3,278	3,024	3,185
Fifth.....	2,991	3,109	2,829	2,702	2,807
Sixth.....	1,038	1,035	1,002	941	935
Total.....	12,612	13,449	12,005	11,326	11,990

FISHERIES.

The ownership by private individuals of exclusive fishing rights in the sea waters adjoining the islands of this Territory commands immediate attention and consideration. Former reports are indicative of the distinct phases which this subject has assumed by reason of the provisions of the organic act recognizing vested rights and providing a method for their establishment and condemnation. But subsequent judicial decisions have had the effect of eliminating the question as to what were vested rights within the meaning of section 95 of the act. And there now alone remains the consideration of ways and means of their condemnation and acquisition by the Territory.

It would not be amiss here to give a brief résumé of the cause and effect of sections 95 and 96 of the organic act.

In 1839 Kamehameha III took the fishing grounds from Hawaii to Kauai and distributed them—those named without the coral reef and the ocean beyond to the people, those “from the coral reef to the sea beach to the landlords and for the tenants of their respective lands and not for others.” In 1849, the monarchy being then constitutional, an act was past, the first section of which provided that the fishing grounds outside the reef should be free to the people, while the fishing ground from the reef to the beach or where there were no reefs for 1 mile seaward, should in law be considered private property of the landlords whose lands by ancient regulation belonged to the same, in the possession of which private fisheries said landlord should not be molested.

The civil code of 1859 repeated these early enactments in nearly the same words and there was a later repetition in the penal laws of 1897.

This law was in force and effect when the organic act became effective as to the Territory.

Section 95 repealed the laws conferring exclusive fishing rights in the sea waters of the Territory subject to vested rights. Section 96 made provision for the establishment of vested rights by the filing of a petition in a circuit court of the Territory setting forth the claim to such fishing right, said petition to be filed within two years after the taking effect of the act. The latter portion of the section provided for the condemnation of such fishing rights as might be established and the making of compensation therefor by the Territory.

Within the time limited, 82 claims were filed in the appropriate courts. Two cases were typical of the character of claims presented—Samuel M. Damon *v.* The Territory of Hawaii and Joseph O. Carter

et al, trustees under the will of B. P. Bishop, deceased, v. The Territory of Hawaii. In the first case the plaintiff based his claim upon the statutes hereinbefore mentioned and also a royal patent grant from the king. This patent described certain land conveyed by metes and bounds, the granting clause concluding with the words: "There is also attached to this land a fishing right in the adjoining sea, which is bounded as follows," giving boundaries. The habendum clause was: "To have and to hold the above granted land." The plaintiffs in the Carter case based their claim not upon words of grant in a royal patent but upon the statutes already referred to, as a right pertinent to the land by prescription and ancient Hawaiian custom.

The supreme court of the Territory, in the Carter case, held that the plaintiffs could not base any claim to the fishery on ancient custom or prescription; that the fishery was not appurtenant to the land and that the statutes did not confer a vested right, and, in the former case, upon the further ground that it did not appear from the patent that it was the intention of the grantor to convey the fishery and that the grant of exclusive right should not be presumed, the presumption being against the grant and in favor of the public.

The Supreme Court of the United States reversed the decision of the territorial supreme court in the Damon case, and since the last report took like action in the Carter case.

The practical result of these two decisions has been to dissolve all cases pending into mere proceedings to establish fisheries either by grant or prescription, and as fast as circumstances have permitted these cases have been disposed of. But few are pending. Upon the completion of this litigation there will have been established in the sea waters adjoining the islands of this Territory private and exclusive fisheries covering the greater portion of sea waters between the coral reefs and the shore.

By the common law the title and dominion of the sea and navigable rivers and arms of the sea within the territorial jurisdiction were in the king, who held the same for his subjects, who had a common right of fishery therein. The right of fishing in the open sea, like that of navigation, was a public right. Congress recognized that principle in its repeal of all laws pertaining to private and exclusive fisheries. It manifested its intention, except as to vested rights, to make fishing in the sea waters of this Territory a common right to citizens of the United States, for their free use and benefit. But Congress did not appreciate the extent to which vested rights in fisheries obtained in these islands. The early statutes fostered a custom far reaching in its scope. Early land tenure concentrated land holdings in a few, and the right to sea fisheries appurtenant to the lands built up practically exclusive dominion over adjoining sea waters. One can only appreciate the extent of the 82 claims filed by an examination of the coast lines covered by the appended list of cases instituted for the purpose of establishing fishing rights. And the Supreme Court of the United States has declared these rights to be vested, while Congress has enacted that these private and exclusive rights to sea fisheries must be acquired by the Territory for the use of the citizens of the United States. The Territory, however, is without funds and without the ability to borrow the money in settlement of these claims. The organic law required that proceedings in condemnation must be instituted, but before these proceedings are commenced there must be the

available funds to satisfy whatever judgment in condemnation may be awarded against the Territory. We are at present without the information as to what the total value of these fisheries will amount to. Congressional assistance by proper appropriation of money is the only practical method by which citizens of the United States can secure for themselves that right which is preserved to all our citizens in common of States and Territories bordering on the sea—the free and open right of fishery.

List of fishery cases.

Cases.	Law number.	Case number.	Circuit.
J. O. Carter et al. v. Territory. Action to establish fishing right of Kaluaooou & Waiau.	5264	33	First.
J. O. Carter et al. v. Territory. Action to establish fishing right of Punaluu.	5263	31	Do.
J. O. Carter et al. v. Territory. Action to establish fishing right of Kaluanui.	2558	19	Do.
J. O. Carter et al. v. Territory. Action to establish fishing right of Heeia.	5255	18	Do.
J. O. Carter et al. v. Territory. Action to establish fishing right of Maunaloa.	5256	32	Do.
J. O. Carter et al. v. Territory. Action to establish fishing right of Kapalama.	.....	20	Do.
J. O. Carter et al. v. Territory. Action to establish fishing right of Paalaa & Kawaioa.	5261	31	Do.
Jomitila Paiko v. Territory. Action to establish fishing right of Kuliouou I.	5303	52	Do.
Anna Perry v. Territory. Action to establish fishing right of Wailupe.	5300	51	Do.
S. M. Damon v. Territory. Action to establish fishing right of Kailawa.	5164	5	Do.
Victoria Ward v. Territory. Action to establish fishing right of Kukuluao.	5124	11	Do.
L. L. McCandless v. Territory. Action to establish fishing right of Ohikilolo.	5166	8	Do.
L. L. McCandless v. Territory. Action to establish fishing right of Pipiloa.	5316	78	Do.
H. H. Parker v. Territory. Action to establish fishing right of Kalokohamaho.	5298	50	Do.
J. O. Carter et al. v. Territory. Action to establish fishing right of Waiala.	5257	22	Do.
J. O. Carter et al. v. Territory. Action to establish fishing right of Halawa, Ewa.	.....	16	Do.
J. O. Carter et al. v. Territory. Action to establish fishing right of Halawa, Molokai.	.....	24	Second.
J. O. Carter et al. v. Territory. Action to establish fishing right of Kaonohi.	5266	23	First.
J. O. Carter et al. v. Territory. Action to establish fishing right of Waialae-nui.	5259	21	Do.
James Campbell, Tr., v. Territory. Action to establish fishing right of Honouliuli.	5075	3	Do.
James Campbell, Tr., v. Territory. Action to establish fishing right of Kahuku.	5268	.....	Do.
Oahu R. & L. Co. v. Territory. Action to establish fishing right of Honouliuli and 8 others.	5285	43	Do.
B. Cartwright, Tr., v. Territory. Action to establish fishing right of Mahinui.	5294	47	Do.
W. G. Irwin v. Territory. Action to establish fishing right of Keana.	5175	1	Do.
John Defries v. Territory. Action to establish fishing right of Halawa.	5306	66	Do.
Solomon Kauai v. Territory. Action to establish fishing right of Keauau.	5252	40	Do.
M. P. Robinson v. Territory. Action to establish fishing right of Hoacae.	5305	57	Do.
Heeia Agricultural Company v. Territory. Action to establish fishing right of Heeia.	5274	36	Do.
J. M. Monsarrat v. Territory. Action to establish fishing right of Kuliouou I.	5317	77	Do.
G. F. Ropert v. Territory. Action to establish fishing right of Ell, at Leahi.	5301	53	Do.
B. Cartwright, Tr., v. Territory. Action to establish fishing right of Mokapu.	5304	48	Do.
Catherine Stewart et al. v. Territory. Action to establish fishing right of Kahalaui.	5310	56	Do.
Kapiolani Est., Ltd., v. Territory. Action to establish fishing right of Mikiola.	5241	14	Do.
Liliuokalani v. Territory. Action to establish fishing right of Hamohamo.	5308	61	Do.
Mary Lucas v. Territory. Action to establish fishing right of Niu....	5321	67	Do.
Henry Smith, Tr., v. Territory. Action to establish fishing right of Makaha.	5287	42	Do.

List of fishery cases—Continued.

Cases.	Law number.	Case number.	Circuit.
Kapiolani Est., Ltd., v. Territory. Action to establish fishing right of Mokauea.	5123	12	First.
Nanie R. Rice v. Territory. Action to establish fishing right of Kaneohe.	5267	38	Do.
B. Cartwright, Tr., v. Territory. Action to establish fishing right of Halawa.	5294	41	Do.
Kaneohe Ranch Company v. Territory. Action to establish fishing right of Kaneohe.	5273	35	Do.
Mary E. Foster v. Territory. Action to establish fishing right of Kahana.	5269	37	Do.
S. M. Damon v. Territory. Action to establish fishing right of Moanalu.	5163	9	Do.
Grace Kahoalii v. Territory. Action to establish fishing right of Kauhola.	5307	59	Do.
John H. Est., Ltd., v. Territory. Action to establish fishing right of Waipio.	5112	10	Do.
Emma M. Nakuina v. Territory. Action to establish fishing right of Honomuni.	.....	63	Second.
J. O. Carter et al. v. Territory. Action to establish fishing right of Walaale-iki.	5282	17	First.
J. O. Carter et al. v. Territory. Action to establish fishing rights of Punaluu.	.....	31	Do.
H. P. Baldwin et al. v. Territory. Action to establish fishing right of Kaanapali.	.....	69	Second.
Hawaiian Com. & Sug. Co. v. Territory. Action to establish fishing right of Waialuku, Maalaea, Kihel.	.....	13	Do.
Hawaiian Com. & Sug. Co. v. Territory. Action to establish fishing right of Paukukalo et al.	.....	39	Do.
Wm. Shaw et al. v. Territory. Action to establish fishing right of Walokama.	.....	75	Do.
C. A. Buchanan and wife v. Territory. Action to establish fishing right of Kupeke, Molokai.	.....	75	Do.
Kekualono v. Territory. Action to establish fishing right of Maulele.	.....	65	Do.
Jas. Kona et al. v. Territory. Action to establish fishing right of Amakoli.	.....	46	Do.
W. H. Cornwell v. Territory. Action to establish fishing right of Kaonoulu.	.....	58	Do.
Lokalia Freeman v. Territory. Action to establish fishing right of Walehu.	.....	49	Do.
H. Waterhouse & Co., Tr., v. Territory. Action to establish fishing right of Papakakai.	.....	70	Do.
W. G. Irwin et al. v. Territory. Action to establish fishing right of Kaohai, Lanai.	.....	54	Do.
J. O. Carter et al. v. Territory. Action to establish fishing right of Kapua.	.....	25	Third.
J. O. Carter et al. v. Territory. Action to establish fishing right of Waipio, Hamakua.	.....	34	Fourth.
J. O. Carter et al. v. Territory. Action to establish fishing right of Hamohamouui, Waialea.	.....	60	Do.
J. O. Carter et al. v. Territory. Action to establish fishing right of Kahuwai, Puna.	.....	27	Do.
J. O. Carter et al. v. Territory. Action to establish fishing right of Kaneo.	.....	26	Do.
J. O. Carter et al. v. Territory. Action to establish fishing right of Pualaa.	.....	28	Do.
Puna Sugar Co. v. Territory. Action to establish fishing right of Keahalakaa.	.....	55	Do.
R. A. Lyman v. Territory. Action to establish fishing right of Kula, Kapoho, Halakamahiwa.	.....	68	Do.
W. H. Shipman v. Territory. Action to establish fishing right of Keaanu.	.....	45	Do.
C. B. Makee et al. v. Territory. Action to establish fishing right of Moloaa.	.....	73	Fifth.
C. Brown, Tr., v. Territory. Action to establish fishing right of Nawiliwili, Haleiwa River, Niumalu.	.....	6	Do.
Makee Sug. Co., Ltd., v. Territory. Action to establish fishing right of Waipole and six others.	.....	71	Do.
Lihue Plantation Company (Limited) v. Territory. Action to establish fishing right of Hanamanulu, Kanapoki, and Waialua.	.....	.....	Do.
J. O. Carter et al., Tr., v. Territory. Action to establish fishing right of Waipa.	.....	29	Do.
S. W. Wilcox v. Territory. Action to establish fishing right of Walakoko.	.....	74	Do.
A. S. Wilcox v. Territory. Action to establish fishing right of Hanalei, Muliwai, Kalihiwai, Kalihiwai, and Kalihiwai River.	.....	15	Do.
F. Wundenberg, Tr., v. Territory. Action to establish fishing right of Anini and Hanalei.	.....	44	Do.
McBryde Est., Ltd., v. Territory. Action to establish fishing right of Kulooa.	.....	4	Do.
A. C. McBryde v. Territory. Action to establish fishing right of Wailawa, Lawai, and Lawai River.	.....	2	Do.
R. A. Macfie v. Territory. Action to establish fishing right of Kama-hana.	.....	76	Do.

List of fishery cases—Continued.

Cases.	Law number.	Case number.	Circuit.
Kapiolani Est., Ltd., v. Territory. Action to establish fishing right of Hanapepe River.		7	Fifth.
William H. Rice v. Territory. Action to establish fishing right of Kipukai and Kalapake.		72	Do.
Alex. McBryde v. Territory. Action to establish fishing right of Kalaheo.		62	Do.
McBryde Estate v. Territory. Action to establish fishing right of Omao.		62	Do.

LEGISLATIVE WORK IN HAWAII.

Since annexation and the creation of a Territory as an integral part of the Union the legislative work in Hawaii has been accomplished by three regular sessions, one special session, and one special session of the senate alone; this within a period of six years.

The organic act reads as follows:

Sec. 41. That the first regular session of the legislature shall be held on the third Wednesday in February, nineteen hundred and one, and biennially thereafter, in Honolulu.

Sec. 43. That each session of the legislature shall continue not longer than sixty days, excluding Sundays and holidays: *Provided, however,* That the governor may extend such session for not more than thirty days. * * *

Sec. 54. That in case of failure of the legislature to pass appropriation bills * * * the governor shall, upon the adjournment of the legislature, call it in extra session for the consideration of appropriation bills. * * *

As yet the people have not found representatives determined to complete their work within the time allowed for the regular session. Thus far no legislature has past appropriation bills during the regular session, and thus each automatically forced an extra session. From the following table it will be noticed that there has been a constant decrease in the cost per day of the legislative branch of the government of the regular sessions:

Years.	Acts past.	Working days.	Cost of both houses.	Cost per diem.
1901.....	27	116	\$94,654.94	\$815.99
1903.....	106	119	84,611.24	711.01
1905.....	103	103	62,578.06	607.55

The foregoing table of the three regular sessions shows a very marked decrease in the total cost of the sessions. This is noteworthy as indicating the progress of the Territory toward economy and efficiency.

The special session of the senate alone was held in 1902, for the purpose of securing its necessary approval to the governor's removal of certain Territorial officials whose public usefulness had ceased. The work lasted twelve days and cost the taxpayers \$4,012.70.

The legislature of 1903 had made appropriations far in excess of the income. On taking office in November of that year it was evident that such financial conditions could no longer be tolerated without

loss of credit, and, on the principle that the making of laws and passing of appropriations are legislative rather than executive work, and that the responsibility for the same lies with the people of the Territory, a special session of the legislature was called. It was convened on the 6th day of April, 1904, and in a period of twelve days this legislature past fourteen separate bills by which the operating expenses of the Territory were reduced to within its income.

The shortness of this session and the rapidity with which work was done showed what it was possible for the people of the Territory to expect of its representatives. The expenses of that special session were, of course, large per diem, because of the fixed compensation of \$9,000 to which the 45 members were entitled. The total cost was \$11,079.68.

PERMANENT SETTLEMENTS.

The Territory of Hawaii inherited from the Republic a number of small permanent settlements or life pensions, amounting to \$1,060 a year. They were in the nature of payments to the wives of men who had been killed by accident or otherwise in performing a public duty. In the year 1902 the legislature added to that list \$7,500 for the former Queen Liliuokalani. In that year one of the former pensioners died, leaving four with annual pensions of \$200 each, making a total of \$8,300. No change occurred in the following years, until the last session of the legislature added a fifth to those receiving \$200 a year, making a total of \$8,500. The present beneficiaries, with respective annual pensions, are as follows:

Queen Liliuokalani	\$7,500
Mrs. Emma Barnard	200
Mrs. Kamakani Simeona	200
Mrs. Mary R. Stoltz	200
Mrs. Paahao	200
Mrs. Mahelona	200
Total	8,500

FIRE CLAIMS.

In the last annual report of the governor there was an error of \$1 in the statement of the fire claims for 1905, which should have read as follows: Warrants outstanding or unpaid July 1, 1904, \$13,448.83; warrants paid during the year ending June 30, 1905, \$7,901.18; warrants outstanding or unpaid June 30, 1905, \$5,547.65, thus leaving cash on hand June 30, 1905, to meet warrants, \$6,281.78, instead of \$6,280.78.

The following is a statement of changes during the current year:

Balance of cash on hand July 1, 1905	\$6,281.78
Warrants outstanding June 30, 1905	\$5,547.65
Warrants outstanding June 30, 1906	4,101.31
Warrants paid during the year ended June 30, 1906	1,446.34
Balance of cash on hand June 30, 1906	4,835.44

It will be noted that, as in former years, there is an excess of \$734.15 over and above the outstanding warrants.

CHINESE FUND.

The last annual report showed a balance of cash on hand of \$3,690.80. Thirty-eight claims have been presented and examined by the secretary of the Territory during the fiscal year ended June 30, 1906, their total being \$1,201.20, thus leaving a balance of cash on hand in this special fund in the treasury of \$2,489.60.

HAWAIIAN COINAGE.

In the governor's annual report for the year 1903 appeared a statement of the Hawaiian coins that had been issued under the monarchy, with the amounts redeemed by the United States up to June 30, 1903. Since that date there has been furnished, thru the courtesy of the president of the First National Bank of Hawaii, the following figures:

Statement of April 17, 1906.

Denomination.	Total issue.	Redeemed.
Dollars.....	\$500,000.00	\$448,009.00
Half dollars.....	350,000.00	304,947.00
Quarter dollars.....	98,000.00	60,295.75
Total.....	978,000.00	813,311.75

From the foregoing it appears that there were, on April 17, 1906, still outstanding and unredeemed \$51,931 in dollars, \$45,053 in half dollars, \$39,704.25 in quarters, and the entire coinage of dimes, amounting to \$50,000.

As has already been noted, the entire issue of dimes has been taken up by collectors and souvenir hunters, and probably a large portion of the quarters have also disappeared in the same manner.

POSTAL SAVINGS BANK DEPOSITORS.

In the days of the monarchy the legislature of 1884 established a postal savings bank in Hawaii, which was opened for business on the 1st of July, 1886, with His Majesty Kalakaua as first depositor. That this was a most successful institution is shown by the fact that on the 12th of August, 1898, there were 10,555 depositors, with a total deposit of \$914,047.34. Thru this institution, with the security of the whole government behind it, people of small means were enabled safely to invest their funds.

At the time of annexation Congress did not deem it wise to continue the institution, and provision was made to abolish it. As this was known some time in advance, deposits were withdrawn until on the 14th of June, 1900, they amounted to \$764,570.31. This being a part of the indebtedness of the Republic of Hawaii, it was deducted from the four millions which, by the treaty of annexation, the Federal Government agreed to assume. The balance of the four millions was applied to canceling the bond debt of the Republic.

The accounts of 245 depositors in this bank are still uncollected. They represent the sum of \$2,244.74 which has been set apart as a

special fund in the Treasury at Washington. The accounts vary from 3 cents to \$200 and average but \$9.16 apiece. Many of the claimants have died and their estates have not been of sufficient value to warrant their heirs in providing the necessary costs for probate proceedings.

It seems as if some action on the part of Congress is necessary to dispose of these accounts by specifying that all those not collected within a certain date should be debarred and authorizing the Secretary of the Treasury to thereafter apply the remainder to the reduction of the Territory's debt.

STUDY OF LEPROSY.

A proclamation appears in the last annual report of the governor, setting aside a mile square of land in the leper reservation at Molokai, a prerequisite to the establishment there by the Federal Government of a hospital and laboratory for the investigation of this disease in accordance with an act of Congress, approved March 3, 1905. This is a matter of very deep interest to the Territory, and it is to be regretted that as yet the work of construction on the ground has not begun. Congress could have taken no action that would have pleased the people of this Territory more than that by which they provided for the investigation and study of this disease, as it has inspired many with hope that the day is not far distant when this disease can be cured or at least alleviated.

FINANCES.

From the special article by Mr. A. J. Campbell, treasurer of the Territory, it will be seen that the fiscal period covered by this report ends with a fair amount of cash in the treasury and no floating debt. This has been accomplished mainly by making the taxes payable semiannually in two installments, thus bringing into this fiscal period practically one-half of the total taxes, ordinarily paid in November.

The change makes an apparently large increase of income with a corresponding excess of receipts over disbursements, yet in reality it simply has supplied the treasurer with cash necessary to prevent the registering of warrants. A proper analysis requires that the taxes paid in May, which would ordinarily be paid in November next (\$665,798.94), should be deducted. But even then it is gratifying to note that the year shows a balance on the right side.

Year.	Receipts.	Disbursements.	Excess disbursements.	Excess receipts.
1900-1901.....	\$2,140,297.36	\$2,576,685.53	\$436,388.17	.....
1901-2.....	2,473,172.81	2,382,968.90	.....	\$90,203.91
1902-3.....	2,387,715.88	2,603,194.20	215,478.32	.....
1903-4.....	2,415,356.33	2,844,054.81	428,698.48	.....
1904-5.....	2,354,813.02	2,246,430.40	.....	108,383.62
1905-6.....	3,320,998.90	2,513,877.09	.....	807,121.81

* For purposes of comparison, \$665,798.94 of taxes paid in May should be deducted, leaving \$2,655,199.96

Prior to annexation, in fact from 1895 to 1899, the annual public receipts collected in these islands averaged \$2,450,000. From the foregoing table it will be noted that this has not materially increased, the average for the five years preceding this being \$2,354,000.

TAXABLE PROPERTY.

President McKinley approved the joint resolution of annexation on July 7, 1898, by which the absorption of Hawaii into the Union became a certainty. In that year the taxes collected on real and personal property, under a rate of 1 per cent, amounted to \$535,024.

On June 14, 1900, came into operation the "organic act" past by Congress and approved April 30, 1900. During that year the actual collections, with a similar rate, amounted to \$934,455.

During the year 1905, with a like rate, the collections amounted to \$1,179,998. If we deduct the collections made from March 31, 1906, we will find that, had there been no change in the law, the income from real and personal property this year would have been \$1,314,038.61.

Without further investigation, this would indicate a great increase of wealth. But a slight examination shows that there has not been a corresponding increase in the total income of the Territory. Prior to June 14, 1900, a large proportion of the revenues consisted of customs receipts. When these were surrendered to the Federal Government it became necessary to replace the loss from some new source or to reduce the expenditures of the people. It is exceedingly difficult for a community to retrench. People accustomed to official management of various public services—to a form of government covering a wide range of functions—are not likely to submit to a sudden contraction. Hawaii met the situation, first, by a general acceptance of increased valuations on real and personal property; next, by imposing an income tax; and lastly, by a heroic cut in appropriations.

The figures show an increase in income from real and personal property of 74 per cent, caused by annexation, i. e., there was a jump from \$535,024 in 1898 to \$934,452.32 in 1901. Yet after the reaction of this sudden inflation had set in the people submitted to still greater valuations, and notwithstanding constant reductions in rental values and earning capacity, during the next four years an increase of 27 per cent took place—a jump from \$934,452.32 in 1901 to \$1,179,998.27 in 1905. Now, had there been a corresponding increase in wealth these figures could be maintained. That the taxable values of property have been too high is shown by the fact that last year the assessors were forced to submit to a reduction of \$2,749,085 in the total value of taxable property, as is shown by the following:

Total grand list, January 1, 1905.....	\$133, 924, 100
Total grand list, January 1, 1906.....	131, 175, 015

BONDED DEBT.

As the treasurer shows, the bonded debt has increased during the year \$724,000. Thus the total indebtedness of the Territory is 2.90 per cent of the taxable property.

The following is a comparative statement of taxes collected for each fiscal year since annexation:

Comparative statement of taxes collected for each fiscal year since annexation.

	1900-1901.	1901-2.	1902-3.	1903-4.	1904-5.	1905-6.
Real estate.....	\$444,059.63	\$532,637.09	\$560,456.31	\$618,890.81	\$609,343.72	\$961,433.76
Personal property.....	490,392.69	571,248.69	592,325.37	607,589.82	570,654.55	928,841.53
Insurance.....	3,223.65	3,846.00	4,685.11	4,623.38	56.15	.....
Dogs and tags.....	4,135.86	4,325.19	4,787.60	4,484.80	5,395.50	5,579.60
Bicycle tags.....	.....	.....	.....	.....	.....	143.10
Poll.....	49,922.00	46,299.00	51,009.00	48,148.00	49,998.00	48,791.00
Road (including carriages, carts, and drays).....	114,459.50	108,861.00	119,822.00	114,806.00	118,144.00	139,849.00
School.....	99,838.00	92,592.00	102,016.00	96,296.00	99,996.00	97,582.00
Ten per cent penalties ..	7,699.43	9,586.27	9,359.31	12,011.82	12,107.03	10,260.93
Interest.....	.....	.....	.....	.....	45	462.41
Costs.....	1,595.15	1,525.05	1,465.65	1,806.70	3,322.12	2,216.68
Income.....	.....	287,366.80	205,096.00	172,542.16	157,057.98	392,130.22
Total.....	1,215,325.91	1,658,107.09	1,651,023.12	1,681,199.49	1,626,075.50	2,587,290.23

TERRITORIAL BONDS.

Attention is called in the last governor's report to the restriction which the organic act placed on the kind of bonds that may be issued by the Territory. Only those that are redeemable after five years and payable in fifteen years from date can be sold. This is a restriction which Congress should remove, as the modern tendency in finance makes our bonds practically five-year bonds and so short a term as this renders them undesirable to a large class of investors. From suggestions offered by leading financial houses in New York City it would be far better for the Territory to be restricted to the issue of a bond payable twenty years after date of issue, with a condition that 5 per cent of every issue must be redeemed each year, the bonds to be redeemed to be drawn by lot. It is claimed that such a bond is always more certain of payment, and commands therefore a higher market price. Such a law would enforce upon this Territory the necessity of not only meeting its obligations but of providing a sinking fund for the extinguishment of it, one-twentieth of each issue being paid every year.

NEEDED LEGISLATION.

The passage by Congress of the so-called "funding bill" is of greater importance than all other things combined. A breakwater at Hilo, for the protection of its commerce, a hydro-geological survey of the life-giving waters of these islands, and many other matters need attention, but it is useless to flood Congress with a lot of minor measures when one of so great importance is before it.

If American control of Hawaii is to be benignant and intelligent the principle must be admitted that noncontiguous areas, separated by 2,000 miles from the mainland, must have different treatment from those political subdivisions which are separated from their neighbors only by an imaginary line. Not only geographically is the difference great, but Hawaii is the point of contact where the Orient and the Occident meet, and our institutions and citizens should be of the highest and best type. And until we can secure a recognition of the

principle that different conditions require different treatment, it is useless to expect that the small, far cry from Hawaii will be heard in the clamor at Washington of nearer and larger subdivisions of the Union.

At present, Hawaii's resources are unnecessarily and unduly taxed, and the problems that our citizens here are struggling with deserve more encouragement and assistance from "Uncle Sam."

ARTICLES ON THE VARIOUS DEPARTMENTS[OF FEDERAL WORK IN THE TERRITORY.

AGRICULTURAL EXPERIMENT WORK.

[By JARED G. SMITH.]

Under the direction of the Secretary of Agriculture the entire station staff devotes its principal attention to the demonstration of the possibility of growing crops other than sugar, the ultimate intention being an increase in the number of the American citizen population in Hawaii. The plan is to demonstrate by field experiments at the Hawaii Experiment Station, or elsewhere, by the introduction and distribution of seeds and plants, by the dissemination of information in printed form by letter and by lectures, by the maintenance of a farmers' institute, by assistance rendered to agricultural societies in Hawaii. In 1901, when this station was established, there were practically only five industries—sugar, cattle raising, rice, taro, and coffee. In 1906, at the end of five years' work for diversification, there are in addition to these, sisal, pineapples, tobacco, rubber, vanilla, silk, bee keeping, and a large and growing fresh-fruit trade. The increase in the production of wealth in Hawaii because of the establishment of these new industries amounts to over \$1,000,000 per annum.

TOBACCO INVESTIGATIONS.

The object is to demonstrate the possibility of growing cigar-leaf tobaccos in Hawaii. The work is carried on by the joint assistance of the experiment station, the territorial board of agriculture, and private parties. A small crop was grown under cloth in 1904. In 1905, 1½ acres were grown without shelter, and in 1906, 4 acres are under cultivation under field conditions. About 200 acres of tobacco have been planted by private parties since 1904. The station has produced, at its Hamakua tobacco farm, Sumatra-wrapper tobacco, valued by experts at from \$1 per pound upward, and Habana tobacco of good burning qualities equal in flavor and aroma to any similar types grown on the mainland of the United States.

RUBBER INVESTIGATIONS.

The object is to determine the influence which cultivation and the use of fertilizers may have on the yield and quality of commercial rubber. Experiments are under way on the station reservation at Honolulu and the lands of the Koolau Rubber Company at Nahiku, Maui, the latter being a cooperative experiment. No results have as yet been obtained.

COFFEE INVESTIGATIONS.

To assist and extend the cultivation of coffee in Hawaii data has been secured relative to the method of cultivation, planting, topping, shading, fermentation, growing, and marketing of the coffee trees and coffee bean, besides an investigation of the diseases and insect pests of coffee. The cultivation of coffee is now on a sound financial basis in this Territory. All who are now engaged in the production of coffee are doing so at a very slight margin of profit. However, any considerable extension of the industry depends on aid given by the National Government, either thru a duty on coffee brought into the United States from foreign countries or by a direct bounty to be paid on all coffee produced in the United States by the labor of American citizens. There are 300,000 acres of land in the Hawaiian Islands available for the production of this crop; with a duty of 2 cents per pound, or with a direct bounty of \$30 per ton, Hawaii could produce 30 per cent of the whole quantity now consumed within the United States, and this maximum could be attained within ten years.

There is no other industry comparable with the coffee industry for the support and maintenance of a European citizen population. The coffee belt is the most salubrious in the island, and the whole industry is one to which white men would readily turn their attention, provided the National Government would give to this industry the same protection that is afforded to sugar and other crops. Assuming that the average yield of sugar per acre is 4 tons, and that every acre of cane requires two years for its growth, it will be seen that there is a protective tariff of \$68 on every acre of cane grown in Hawaii. The American sugar tariff of \$34 per ton is not entirely prohibitive as regards the importation of sugar from foreign countries. Coffee is a white man's industry, and as such it should receive protection equal to that given to sugar cane. A duty of 2 cents per pound would yield about \$20 per acre protection. A duty of 5 cents would undoubtedly prove prohibitive to foreign competition, and would lead to the investment of \$100,000,000 of outside capital in Hawaii during the next five years.

PLANT PATHOLOGY.

To study and report upon the fungus diseases on cultivated crops other than sugar, preliminary investigations have been made of the diseases of pineapples, potatoes, coffee, vanilla, mangoes, tobacco, carnations, and other crops. Two press bulletins and four bulletins of the regular series have been issued relative to the methods of control of plant diseases.

CULTIVATION OF PLANTS YIELDING TANNIN.

To demonstrate that the cultivation of tan-bark trees is a profitable industry, 6 acres of Black Wattle situated on the station reservation at the lower edge of the Tantalus forest were cut, the wood corded and sold, the bark dried, chopped, baled, and exported. The total yield per acre amounted to \$254.84 for wood and tan bark. Samples of tan bark were sent to many tanners in the United States and a considerable interest was developed. Tanners at Benicia, Cal., stated that if Wattle bark could be guaranteed in thousand ton lots the price

would be much better than that which was outlined, but as it is I know of no other tree suitable for cultivation on large areas in Hawaii that would yield \$250 per acre at the end of ten years. The station demonstration was of value as showing the use which may be made of mountain slopes too steep or rocky for other cultivation at elevations of from 800 to 3,000 feet.

COMPOSITION OF HAWAIIAN FEEDING STUFFS.

To determine the chemical composition of Hawaiian fodder, particularly those not used for fodder on the mainland; to determine the amounts of the most important ash constituents in Hawaiian grown fodders; to determine the best means of supplying lime in a ration thru the medium of the fodder alone without the addition of lime salts; to supply data with which to carry on feeding experiments and determinations of digestion coefficients. Two bulletins have been published during 1906—Bulletin No. 13, "The Composition of Some Hawaiian Feeding Stuffs," and Press Bulletin No. 15, "Lime an Essential Factor in Forage."

CHEMICAL CONSTITUTION OF NITROGENOUS COMPOUNDS IN HAWAIIAN SOILS.

To determine more definitely than is now known the chemical composition and constitution of the body or group of bodies known as humus; to determine the identity and constitution of organic nitrogenous bodies other than humus in Hawaiian soils; to determine whether any organic or nitrogenous bodies present in Hawaiian soils are directly assimilated by plants; and also the degree to which humus and humus compounds can be nitrified. Work of this character is at the foundation of all definite knowledge of the compositions of soils. The only knowledge that we have on the subject has been obtained thru fertilization of soils to determine their ability to produce agricultural crops. It is a line of research investigation not being carried on, so far as known, at any agricultural laboratory outside of Germany. With all the work that has been done for a hundred years by soil chemists, very little has ever been determined in regard to the form in which mineral and organic plant food occurs in the soil. The ordinary chemical analysis simply demonstrates academically the presence of certain chemical elements. But we know almost absolutely nothing as to the form in which these elements are combined and whether they are, or are not, available as plant food.

DENITRIFICATION IN HAWAIIAN SOILS.

To determine to what extent and under what conditions denitrification takes place in Hawaiian soils.

CHEMICAL COMPOSITION OF HAWAIIAN HONEYS.

To determine the proximate composition of Hawaiian honeys and the variation due to the source; to furnish data concerning the composition of honey for the use of bee keepers selling this product on analysis; to determine to what extent in Hawaii elaborate honey from other material than the nectar of flowers, such as from cane sugar, molasses, the honey dew of leaf hoppers, the nectar of extra floral nectaries; to determine, if possible, the factors influencing granulation; and to determine the causes of abnormal ash composition.

Over fifty samples of known sources have been collected thru cooperation with bee keepers in the islands, and these are to be analyzed for the purpose above mentioned.

MANGANESE IN HAWAIIAN SOILS.

To determine the form or forms in which manganese is present in Hawaiian soils and the amount, if any, of water soluble manganese; to determine the relation, if any, of large amounts of manganese in the soils to the presence of ferrous iron and the changes in form of combination, solubility in water resulting from cultivation; to carry on experiments relative to the effect of water soluble manganese on plant growth. The chemist of this station has discovered that large areas of soil in certain sections of the island which have been proved difficult of treatment in the cultivation of cane, pineapples, and other plants contain sometimes as high as 10 per cent of manganese, and it is suspected that this abnormal composition of the soil has something to do with the failures of cultivated crops grown on these fields.

MARKETING OF TROPICAL FRUITS.

To determine what Hawaiian fruits can be safely shipped to the mainland markets and the best methods of handling, packing, and shipping them. To determine the market conditions on the mainland relative to tropical fruits and the possibilities of extending this market. Preliminary shipments of alligator pears, mangoes, papaias, the finer varieties of bananas, and pineapples were made, in 1904 and 1905, in cold storage to New York and other eastern points. On August 1, 1906, the station horticulturist left for San Francisco with 6 tons of fruit of the above varieties, packed and treated in different ways. Studies are to be made on their condition in transit and upon arrival, and the market conditions are to be studied from southern California to British Columbia.

BANANA CULTIVATION.

To determine the best methods to practise in the cultivation of the banana in Hawaii, the most desirable varieties from a market standpoint, and the introduction of desirable commercial varieties from foreign countries. Five acres of land have been planted at Hilo in a fertilization and cultivation experiment. This work is being done in cooperation with the Hilo Boarding School. A large shipment of Bluefield bananas from Costa Rica is being propagated for distribution.

CACAO CULTIVATION.

To determine the adaptability of the cacao tree to Hawaiian conditions, together with the study of cultivation methods. Three acres of land have been planted with cacao imported from Venezuela, Trinidad, Jamaica, and Samoa. The experiment is in cooperation with the Hilo Boarding School.

P

PINEAPPLE INVESTIGATIONS.

To determine the best methods for the cultivation of pineapples, the diseases and insect pests, varieties, and fertilization. It is proposed to publish a bulletin for the instruction of those who wish to

engage in this industry in Hawaii, setting forth the methods of cultivation best adapted to our conditions.

RICE CULTURE IN HAWAII.

To devise more thoro and cheaper methods of tillage than are now in vogue. To compare the relative value of broadcast sowing and drilling of seed with the expensive oriental method of transplanting from seed beds. To study the duty of water in irrigation and the value of drainage in the culture of lowland rice. To determine the adaptability of modern rice-harvesting machinery to Hawaiian conditions and to investigate the best and most economical methods of rice milling. Three and two-tenths acres of rice land belonging to the Ii Estate (Limited), located at the corner of King street and Kalakaua avenue, have been leased, together with water rights. The experiment is a cooperative one between the station, the Bishop estate, the Ii estate, and the Bureau of Plant Industry of the Department of Agriculture in Washington. Over two hundred varieties of rice have been secured from oriental countries. Pot experiments have already been undertaken, and plot work will be conducted on as large a scale as is possible with the amount of funds available.

RICE BREEDING.

To improve existing varieties of Hawaiian rice which do not now meet the requirements of our largest consumers, the Japanese laboring class; to select and originate varieties which may prove more productive; to develop a superior variety more tolerant to the brackish waters prevalent near the sea.

CHEMICAL FERTILIZERS AND ROTATION IN HAWAIIAN RICE CULTURE.

To determine the value of chemical fertilizers in manuring the rice crop; to determine the value of crop rotation in Hawaiian rice culture. Suitable plants for low, wet land culture are being sought, and will be planted either as substitutes for the rice crops or as a rotation crop with rice.

SILK CULTURE IN HAWAII.

To determine the race of silk worm best suited to local conditions; the quality of silk that can be produced in Hawaii, and the possibility of growing the silkworm cocoons as an industry. Breeding experiments and investigations have been carried on at the station in cooperation with the Bureau of Entomology of the Department of Agriculture. A race of silkworm has been grown thought to be suitable to the Hawaiian climate, and cocoons have been tested and the raw silk analyzed for comparison with the product of other silk-producing countries. The work thus far has been very encouraging, and silk of excellent quality has been produced.

BEE KEEPING IN HAWAII.

To determine the extent and importance of bee keeping in Hawaii; the possibility of extension of the industry; improvements in races of bees and methods of apiculture; to investigate enemies and diseases of bees and the control of the same; to study the sources of Hawaiian honey, and to introduce additional plants suitable for bee pasturage.

New races of bees have been introduced thru the cooperation of the Bureau of Entomology of the Department of Agriculture, Washington, D. C., and studies have been made of the bee moth, a serious parasite of hive bees and of a bacterial disease affecting the honeycomb. The various island honey companies have actively assisted the station in carrying on these important lines of investigation.

FEDERAL QUARANTINE PROBLEMS.

[By L. E. COFER.]

The prospective opening in December of the Tehuantepec route, over which Hawaiian sugars will be transported to the Northeastern States and general merchandise brought as return cargoes, will create a quarantine problem of the greatest importance to the people of Hawaii. This quarantine problem is caused by certain factors, namely, the disease, yellow fever; its intermediate host, the *Stegomyia* mosquito; the actually or presumably infected Tehuantepec Peninsula; the infectible Territory of Hawaii, and finally the connecting or controlling influence, the transportation lines.

THE DISEASE, YELLOW FEVER.

The Public Health reports of the Public Health and Marine-Hospital Service, during the biennial period ended December 31, 1905, show that there were 242 cases of yellow fever in the isthmian town of Coatzacoalcas, the eastern terminus of the Tehuantepec Railway; 2 cases in Salina Cruz, the western terminus of the said railway; and 85 cases in Tehuantepec, a town having communication with the first two named.

THE INTERMEDIATE HOST, THE STEGOMYIA MOSQUITO.

This mosquito, the intermediate host of yellow fever, is not only present in Hawaii and on the Tehuantepec Peninsula, but is capable of being transported in vessels. The theory that the *stegomyia* is only infected by man and that the yellow fever virus can only affect man thru the intermediation of this mosquito is universally accepted.

THE ACTUALLY OR PRESUMABLY INFECTED TEHUANTEPEC PENINSULA.

The statistics given above show that the Isthmus of Tehuantepec has been infected with yellow fever during the past. Therefore, from a quarantine standpoint, with our present knowledge of yellow fever and the circumstances which attend an appearance of this disease, evidence to the effect that it is not now infected with yellow fever must be accepted as negative, unless said evidence be made positive by regular and continuous reports from officers of the Public Health and Marine-Hospital Service stationed in the isthmian towns.

THE INFECTIBLE TERRITORY OF HAWAII.

It may be said that any tropical or semitropical locality inhabited by the *stegomyia* is "infectible" so far as yellow fever is concerned, and that such a locality may become infected at any time by the introduction of a case of yellow fever or a mosquito infected with the disease.

THE CONNECTING OR CONTROLLING INFLUENCE, THE TRANSPORTATION ROUTES.

The *stegomyia fasciata* is a good "sailor" and, according to Guiteras, an infected mosquito can live one hundred and fifty-four days; therefore the possibility of the transmission of the infected adult mosquito must be accepted as a fact for quarantine purposes. The arrival of vessels with actual cases of yellow fever on board is of course not an unusual occurrence in quarantine practise.

THE SOLUTION OF THIS QUARANTINE PROBLEM.

The solution of what might be called the "Hawaiian-Tehuantepec quarantine problem" lies in three agencies:

First.—The organization of the Public Health and Marine-Hospital Service.

Second.—Internal sanitation and mosquito extermination at Honolulu.

Third.—Internal sanitation, mosquito extermination, and the employment exclusively of immune stevedores in the isthmian towns.

First.—The organization of the Public Health and Marine-Hospital Service. This Service, as a whole, has had a vast amount of experience in combating yellow fever, and Hawaii may rest assured that Surgeon-General Wyman is alive to the local situation and will meet the latter by the operation of all modern scientific quarantine methods applicable thereto.

Second.—Internal sanitation and mosquito extermination at Honolulu. The Hawaiian Territorial board of health has been doing steady and efficient work in internal sanitation and mosquito extermination, and if they are ever to be encouraged morally and financially in a further elaboration of this work there will never be a greater incentive than that which is presented by the Hawaiian-Tehuantepec quarantine problem.

Third.—Internal sanitation, mosquito extermination, and the employment exclusively of immune stevedores in the isthmian towns. A few weeks ago Mr. Hackfeld and Mr. Pfotenhauer, of Hackfeld & Co., who have interested themselves to a highly gratifying and public-spirited degree in the problem under consideration, so far as it affected their steamers and the sanitary status of the two termini of the isthmian railway, showed me a letter which they had received from the president of the American-Hawaiian Steamship Company, in which many recent sanitary improvements in the isthmian towns were set forth. The information contained proved from a quarantine point of view good negative evidence as to the present noninfectedness of the said isthmian towns, and the value of this negative evidence is still further strengthened by the fact that the public health reports of the Public Health and Marine-Hospital Service show no cases of yellow fever at Coatzacoalcas during the six months ending June 30, 1906, and only one case at Salina Cruz during the same period, the said case having been imported on March 18.

The employment of immune stevedores exclusively on the Isthmus is practical, easily possible, economical, and of the utmost importance.

IMPROVEMENT OF HARBORS.

[By Lieut. J. R. SLATTERY.]

PEARL HARBOR.

This harbor is 8 miles west of Honolulu. Before improvement there was a bar at its entrance with a low-water depth of 10 feet on its crest and a coral reef on either side. The project for improvement contemplated dredging a channel 200 feet wide and 30 feet deep at mean low water at an estimated cost of \$100,000. Congress approved this project by appropriating \$100,000 in the act of March 3, 1899.

Contract was made in 1901 for doing the work required. Dredging was begun in March, 1902, and completed in August, 1903, which resulted in a channel 200 feet wide and fully 30 feet (and generally 31 feet) in depth at low water entirely across the bar from deep water in the ocean to deep water in the harbor, at an expenditure of \$99,323.62. The channel has maintained itself.

As yet there is no commercial activity in the harbor. Inside the bar the channel is so crooked and the turns so sharp that it is not safe for the navigation of large vessels. No estimate for remedying this defect has yet been authorized by Congress. The mean range of tides at the entrance is about 14 inches. The work, so far as authorized and appropriated for, has been completed in accordance with the project.

HONOLULU HARBOR.

This harbor is situated on the south coast of the island of Oahu. It is formed by a coral reef, a narrow channel thru the reef affording access to the harbor. The entrance channel and harbor proper were dredged from time to time by the monarchical, republican, and territorial governments of Hawaii prior to July 1, 1904. On this date there existed an entrance channel, having a depth of about 35 feet and a minimum width of about 200 feet at mean low water. The harbor proper, that portion commencing at the light-house and extending to the mouth of the Nuuanu River, had a general width of 800 feet. The water for about 200 feet immediately along the wharves had a depth of from 30 to 32 feet. Elsewhere there was only about 27 feet at low water. The bend at the light-house point was so sharp as to be somewhat difficult for large vessels to get around. The shallow water in the harbor made it impossible for the largest vessels calling at the port to enter the harbor when at all heavily laden. The narrowness of the harbor made turning difficult for all ships.

The present project was adopted by the river and harbor act of March 3, 1905. It provides for an entrance channel 35 feet deep and 400 feet wide at mean low water from deep water at the entrance to the light-house point; for easing the curve at the junction of the entrance channel and the inner harbor by cutting off the light-house point; and for enlarging the harbor proper so that it will have a depth of 35 feet and a general width of 1,200 feet at mean low water, at an estimated cost of \$1,582,840.67, exclusive of a new front range light, estimated to cost \$30,000.

The river and harbor act of March 3, 1905, appropriated \$200,000 for this improvement and authorized a continuing contract for the work to an additional amount not exceeding \$200,000.

Proposals for dredging were opened July 20, 1905, contract was entered into on August 16, 1905, and work was commenced on November 3, 1905, with two hydraulic dredges. On June 30, 1906, the sum of \$193,099.61 has been expended. No part of this was for maintenance.

As a result of the year's work the entrance channel is now 400 feet wide and 35 feet deep at mean low water, and the harbor proper has a general width of 800 feet and a depth nowhere less than 35 feet. In connection with the harbor improvement about 34.6 acres of land belonging to the United States and under the immediate control of the Navy Department and Department of Commerce and Labor were reclaimed with the material dredged, without additional cost. The island just seaward of the light-house was also reclaimed in the course of the work. This island has made the water in the harbor much more quiet, and if it can be enlarged in connection with future work it will be a valuable acquisition. Certain private land belonging to the Dowsett Company (Limited) and Oahu Railway and Land Company (Limited) were also reclaimed. Another portion of the material dredged was used in reclaiming Quarantine Island, for which the contractors were paid 10 cents per yard in addition to the price paid for dredging. A portion of the dredged material was placed on other private lands near the harbor, and a small portion of the material was lost to sea.

FINANCIAL STATEMENT.

July 1, 1905, balance unexpended.....	\$198,797.25
Amount appropriated by sundry civil act approved June 30, 1906.....	200,000.00
	<hr/>
	398,797.25
	<hr/>
June 30, 1906, amount expended during fiscal year for work of improvement.....	191,897.06
July 1, 1906, balance unexpended.....	206,900.19
July 1, 1906, outstanding liabilities.....	141,667.52
July 1, 1906, balance available.....	65,232.67
July 1, 1906, amount covered by uncompleted contracts.....	65,232.67
Amount (estimated) required for completion of existing project.....	1,182,840.67
Amount that can be profitably expended in fiscal year ending June 30, 1908, in addition to the balance unexpended July 1, 1906, for work of improvement.....	600,000.00

RECLAMATION OF QUARANTINE ISLAND.

Quarantine Island is a low, swampy island lying on the reef, on the side of Honolulu Harbor, opposite the city. The quarantine authorities had scraped up the shallow layer of sand overlying the coral reef and raised the land immediately surrounding the buildings and the roads to a height of about 2 feet above high water. Practically all the rest of the island was submerged at high water.

The present project, adopted February 27, 1906, consists in reclaiming the low and swampy portions of Quarantine Island lying within the concrete sea wall, by pumping material dredged from Honolulu Harbor to fill the same, at an estimated cost of \$20,000.

The urgent deficiency act of February 27, 1906, provided as follows:

For the reclamation of Quarantine Island, Honolulu, Hawaii, from the materials now being dredged from the harbor of Honolulu, to be expended under the direction of the Secretary of War and the supervision of the Chief of Engineers, twenty thousand dollars.

Contract was accordingly entered into with the contractors for dredging in Honolulu Harbor on April 10, 1906, and work commenced on May 21, 1906.

On June 30, 1906, approximately 142,596 cubic yards of material had been deposited upon the island, the work being about three-fourths completed.

At the close of the fiscal year the sum of \$245.65 had been expended. No part of this was for maintenance. The balance available will be used to complete the work.

As a result of this work all of Quarantine Island will be made dry land, whereas before the only land above high water was the roads and several small plots about each building.

REMOVING SUNKEN VESSELS.

An allotment of \$6,100 was made on November 8, 1905, from the indefinite appropriation made by section 20 of the river and harbor act of March 3, 1899, for removal of wreck of the American bark *Martha Davis* from Hilo Harbor, Hawaii. An emergency contract was entered into with Fred C. Miller, of Honolulu, on December 12, 1905, for removal of this wreck, and was completed on May 17, 1906. The total cost of the work was \$4,050.25.

FORTIFICATION SITES.

The act of Congress of April 21, 1904, appropriated \$200,000 for the acquisition of sites in the Hawaiian Islands. In accordance with this act sites have been purchased in the Territory of Hawaii as follows:

The Waialae tract, on November 29, 1904.....	\$32, 600
The Puuloa tract (all except one lot belonging to D. H. Hitchcock), on December 20, 1904.....	73, 038
The D. H. Hitchcock lot (Puuloa), on January 25, 1905.....	1, 000
The Hobron property, on January 4, 1905.....	22, 500
The Schaefer property, on June 29, 1906.....	20, 000
The Waterhouse property, on June 29, 1906.....	17, 500
The Afong property, on June 29, 1906.....	28, 000

The total expenditure incurred in the acquisition of the above sites was \$195,641.28. Appropriation \$200,000.

In addition to the matters covered in these reports the following summary of appropriations made during the past session of Congress for works under the United States Engineers' office are of interest:

For range lights, Honolulu Harbor.....	\$40, 000
For first order light station, Makapuu Point.....	60, 000
For construction of sea-coast batteries in the Hawaiian Islands.....	260, 000
For sites for defenses for the Hawaiian Islands.....	150, 000

SHIPPING AT HONOLULU.

[By NORMAN WATKINS.]

The business of the office of the United States shipping commissioner has increased about 10 per cent over the preceding year, owing largely to the greater number of sailing vessels coming here to load sugar for the Atlantic seaboard.

There has been an unusual scarcity of seamen in port during the sugar-shipping season, and ships leaving port, while they have not

been shorthanded as to numbers, have shipped inexperienced men, many of whom were Japanese and Porto Ricans. The reason for the shortage of seamen may be traced to the large amount of public work that has been under way in the city during the past year, on which many seamen have obtained employment.

A feature in shipping circles that has been in no way a credit to the port has been the unusual amount of litigation between seamen and vessels. During the month of May last there were five cases tried in the United States court against vessels of the sugar fleet. Four of the cases have already been decided in favor of the defendants, while the fifth case is pending. The parties bringing suit have been put to practically no expense, while the vessels have been compelled to defend trivial suits, at an expense of hundreds of dollars.

It is of interest, now that it is a well-known fact that the sailing fleet of the past is soon to be crowded out by the steamers, to state that this office paid out to seamen of sailing vessels during the last six years about \$325,000, and only \$25,000 to seamen of steamers during the same period.

POST-OFFICES.

[By JOSEPH G. PRATT.]

Herewith are alphabetical lists of the post-offices in the different counties of the Territory of Hawaii, those marked (A) being international as well as domestic money-order offices and those marked (B) domestic money-order offices.

Honolulu is the only first-class office within the Territory. Hilo is second-class, Lahaina, Wailuku, Lihue, and Kohala are third-class. All of the remainder are fourth-class.

HAWAII COUNTY.

Hakalau (A).	Lalamilo.
Hilo (A).	Laupahoehoe (A).
Holualoa (A).	Mahukona (B).
Honokaa (A).	Mountain View (B).
Honoum (B).	Naalehu (A).
Honuaopo.	Napoopoo.
Hookena (B).	Olaa (A).
Hoopuloa (B).	Ookala (A).
Kailua (B).	Paaupahu (A).
Kalapana.	Pauilo (B).
Kamuela (B).	Pahala (A).
Kawaihae.	Pahoa.
Kealahakua (A).	Papaaloa (A).
Keauhou.	Papaikou (B).
Kohala (A).	Pepoekeo (A).
Kukuihaele (B).	Volcano House.
Kurtistown (A).	Waiohinu (B). Total, 34.

KALAWAO COUNTY.

Kalaupapa (B).	| Kalawao. Total, 2.
----------------	--------------------

KAUAI COUNTY.

Eleele (A).	Kilauea (A).
Hanalei (B).	Koloa (A).
Hanapepe (B).	Lihue (A).
Kealia (A).	Makaweli (A).
Kekaha (A).	Waimea (A). Total, 10.

MAUI COUNTY.

Haiku.	Keomuku.
Halawa.	Kihai (B).
Hamakuapoko (B).	Kipahulu (B).
Hana (B).	Lahaina (A).
Honokahau.	Makawao (B).
Huelo.	Makena.
Kaanapali.	Paia (A).
Kahului (B).	Peahi.
Kalae.	Pelekunu.
Kamalo (B).	Pukoo.
Kaunakakai.	Puunene (A).
Kaupo (B).	Waiahoa.
Keanae.	Wiluku (A). Total, 26.

OAHU COUNTY.

Aiea (A).	Pearl City.
Ewa (A).	Wahiawa (B).
Haleiwa (B).	Waialea.
Heala.	Waiialua (A).
Honolulu (A).	Waianae (B).
Kahuku (A).	Waikane.
Lale.	Waimanalo (A).
Maunawai (B).	Waipahu (A). Total, 17. Grand total, 89.
Midway Island.	

IMMIGRATION BUSINESS.

[By RAYMOND C. BROWN.]

Subsequent to March, 1906, a division was made of immigrant aliens and nonimmigrant aliens. During the three months of April, May, and June 99 nonimmigrant aliens have arrived at this port, coming from 7 different countries and destined for 10 different countries. The arrivals during the fiscal year were as follows:

Month.	Japan- ese.	Chinese.	Miscella- neous.	Total.
July.....	308	20	25	353
August.....	142	16	16	174
September.....	171	19	17	207
October.....	659	15	17	691
November.....	706	7	27	740
December.....	774	10	25	809
January.....	1,004	7	28	1,039
February.....	1,066	2	14	1,082
March.....	1,367	4	13	1,384
April.....	1,423		6	1,429
May.....	1,174	2	3	1,179
June.....	1,143		3	1,146

During the year the board of special inquiry has deported to the country whence they came 2 aliens who were liable to become a public charge, 4 having a loathsome disease, 7 coming to the United States under contract to perform labor, and 43 suffering with a dangerous, contagious disease.

There have been 161 permits issued to Chinese laborers, resident in Hawaii, granting them permission to visit China with the privilege of returning to Hawaii within one year. During the same period 6 Chinese persons were refused a landing at this port and were returned to their own country.

During the year the lot around the new immigrant station has been completely filled, about 100,000 cubic yards of silt, taken from the harbor, being used for the purpose. A portion of the lot has been planted in grass, trees (both fruit and ornamental) have been planted, grounds were platted for walks and driveways, and in a very short space of time it is hoped to make this site one of the beauty spots of Hawaii.

INTERNAL REVENUE.

[By ROY H. CHAMBERLAIN.]

Receipts and disbursements of the office of United States revenue during the fiscal year ended June 30, 1906.

RECEIPTS.

Collections on lists (fines and penalties)	\$1,069.35
Fermented liquors	14,770.00
Distilled spirits (tax paid)	9,351.76
Cigars and cigarettes	33.07
Tobacco and snuff	2,438.51
Special taxes	14,211.66
Playing cards	876.58
Total receipts	42,750.93

ADDENDA.

Source of "special tax" collections as above, and number of special taxpayers:

Rectifiers of less than 500 barrels, per annum	3
Wholesale liquor dealers	48
Wholesale dealers, malt liquors	5
Retail liquor dealers	367
Retail dealers, malt liquors	5
Brewers of 500 barrels or more, per annum	1
Wholesale dealers in uncolored oleomargarine	2
Retail dealers in uncolored oleomargarine	11
Manufacturers of cigars	1
Manufacturers of playing cards	3

Total special taxpayers 446

Total disbursements, including salaries and incidental expenses \$11,082.57

One winery has been started in this district and has manufactured a wine of superior quality from Hawaiian-grown grapes. Undoubtedly there is a large and profitable future for the wine industry in these islands.

Extensive investigations have been made during the past year to ascertain the spirit producing qualities of molasses, pineapples, bananas, ti root, and coffee pulp.

From statistics gathered from the sugar crop of 1905 molasses alone would produce 8,524,956 proof gallons of spirits per annum.

Undoubtedly the large amount of waste materials from the products of these islands will in the future be one of the various wealth-producing sources.

UNITED STATES DISTRICT ATTORNEY.

[By R. W. BRECKONS.]

During the year ended June 30, 1906, 21 civil cases, in which the United States was a party, were terminated; 13 of these were customs cases involving appeals by the United States from appraisements made by the Board of General Appraisers in New York. Nearly all of them hinged on one question, and all were decided in favor of the importer.

Seven miscellaneous cases were terminated, 6 resulting in judgments for the United States, and 1 against the United States. The majority of these cases were condemnation proceedings, rendered necessary by reason of the title to land desired by the United States being faulty.

During the year 48 criminal cases were terminated—2 customs, 4 internal revenue, 6 post-office, and 36 miscellaneous. Of these, 12 cases were nol-prossed, in 2 cases there were acquittals, and in 34 cases there were convictions.

Fines to the extent of \$3,174.34 were inflicted, of which \$1,130 were collected.

It is gratifying to note that during the year the number of cases of traffic in women materially decreased. Either the class formerly engaged in this traffic has grown more subtle in its transactions, or has to some extent ceased its violations of the law.

This is likewise true of illicit distilling. The number of cases terminated during the year was very small compared with previous years. I am rather inclined to believe that this has partially been the result of the repeal of the territorial law on the subject of illicit distilling. The collector of internal revenue has requested all police officers to notify him of illicit distilling cases, and such of them as have arisen since the repeal of the territorial law have been reported to the collector. The penalty inflicted by the laws of the United States is much more severe than that which was formerly inflicted by the territorial law. With the certainty, if detected, of having this severe penalty imposed, people heretofore engaged in illicit distilling are somewhat more careful.

During the year there appeared to be a growing tendency on the part of some of the Chinese residents within the Territory to evade the rigors of the Chinese exclusion act, and the immigration officials of the district have been kept busy endeavoring to prevent such evasions, meeting with success. They have usually taken the form of a Chinaman claiming citizenship in the United States by virtue of birth in the Hawaiian Islands. I understand that there will be concerted action on the part of the Territory and the United States to ferret out these frauds, and to have them severely punished when discovered.

During the year there were instituted two cases under the Sherman antitrust act, under the direction of the Attorney-General of the United States. Both cases have been at a standstill for some time owing to the fact that the court has had under advisement for a considerable period some legal questions involved. It is anticipated that a decision on them will be had at an early date.

I feel that you will be interested to have my views on the effect which at least one of the laws adopted by the last Congress will have on work in the future. I refer to the pure food bill. Its operation within the Territory of Hawaii will be different, in my opinion, from its operation in any other district of the United States. Drugs, food-stuffs, and liquors consumed by the Orientals may be pure and wholesome according to their standards, but not according to the standards fixed and established by the act. Just what the result will be on oriental merchants here of a rigorous enforcement of the law is at present difficult to determine. It is certain, however, that many complications will arise and many prosecutions result.

THE FEDERAL COURT.

[By Hon. SANFORD B. DOLE.]

Herewith is a statement of cases brought in the district court of the United States in and for the Territory of Hawaii, both for the

year ended June 30, 1905, and the year ended June 30, 1906. It will show the work of the court in the most available and interesting form for reference by those interested in the subject.

CIVIL CASES.

Year ended June 30, 1905.		Year ended June 30, 1906.	
Admiralty.....	7	Admiralty.....	30
Equity.....	5	Bankruptcy.....	31
Bankruptcy.....	26	Civil (United States cases).....	9
Civil (United States cases).....	16	Total.....	70
Habeas corpus.....	3		
Total.....	57		

CRIMINAL CASES, 1905.

Offenses.	Number.	Convicted.	Acquitted.	Still pending.	Nol-prossed.
Adultery.....	10	9			1
Assault on high seas.....	2	1			1
Bigamy.....	1	1			
Causing fraudulent money order to be presented for payment.....	1				1
Conspiracy.....	7	5			2
Concealing distilled spirits.....	3	2			1
Depositing in post-office nonmailable matter.....	1	1			
Embezzlement.....	6	3		1	2
Forgery of money order.....	2	2			
Forcibly breaking into post-office.....	1	1			
Illicit distilling.....	7	7			
Making false statement regarding debt of seaman.....	2	1	1		
Making entry of dutiable merchandise by false statement.....	1	1			
Peonage.....	4	3			1
Perjury.....	1	1			
Personating United States officer.....	4		2		2
Retail liquor dealer without paying tax.....	3	1			2
Stealing from mails.....	1	1			
Unlawful cohabitation.....	2	2			
Unlawfully issuing money order.....	3	1		1	1
Violation of internal-revenue law.....	4	4			
Total.....	66	47	3	2	14

CRIMINAL CASES, 1906.

Offenses.	Number.	Convicted.	Acquitted.	Still pending.	Nol-prossed.
Adultery.....	4	3		1	
Assault on high seas.....	2	1			1
Attempting to pass counterfeit note.....	4				4
Bigamy.....	8	4		4	
Conspiracy.....	7	3	1		3
Conspiracy to pass counterfeit note.....	2	2			
Embezzlement.....	2	2			
Fornication.....	1	1			
Forgery of money order.....	1	1			
Having possession of counterfeit coin.....	2	1	1		
Illicit distilling.....	2	2			
Importing women for prostitution.....	1	1			
Larceny.....	1	1			
Making and having possession of counterfeit coin.....	2	2			
Having possession of and passing counterfeit coin.....	1	1			
Personating United States officer.....	1	1			
Receiving and retaining postage stamps stolen from post-office.....	1				
Smuggling.....	2	2			
Violation of passenger act.....	3	3			
Unlawfully carrying on business of brewer.....	1	1			
Total.....	48	32	2	5	8

• Defendant not found.

SUMMARY (YEARS ENDED JUNE 30, 1905, AND JUNE 30, 1906).

	1905.	1906.	Total.
Civil cases.....	57	70	127
Criminal cases.....	66	48	114
Grand total.....	123	118	241

ANALYSIS OF CRIMINAL CASES.

Number.....	66	48	114
Convicted.....	47	32	79
Acquitted.....	3	2	5
Still pending.....	2	5	7
Nolle prossed.....	14	8	22
Defendant not found.....		1	1

CASES APPEALED.

Appealed to circuit court of appeals for ninth circuit:			
By libellee.....		6	
By Government.....		3	
Appealed to Supreme Court of United States:			
By petitioner.....		1	
Affirmed.....		2	10
Not yet decided.....		8	
		—	10

FEDERAL CLIMATOLOGICAL SERVICE.

[By WM. B. STOCKMAN.]

The central station of the Hawaiian section, climatological service of the Weather Bureau, United States Department of Agriculture, occupies as office quarters four rooms on the second floor of the Alexander Young Building, King street side. The instrumental equipment is the same as supplied to the first-class stations of the United States Weather Bureau on the mainland of the United States. Appropriate instruments are exposed on the roof of the King street tower of the Young Building, and consist of a 6-foot wind vane and a Robinson anemometer mounted on an 18-foot iron support; maximum, minimum, dry-bulb, and wet-bulb thermometers, and a recording thermograph, exposed in a shelter, the four sides of which are of slats (louver), admitting of free circulation of air about the thermometers, the bottom closed and the roof double, between the upper and lower portions of which is an open space about 6 inches in height for ventilation. Upon the apex of the instrument shelter a thermometric sunshine recorder is exposed. The wind vane and anemometer support and the instrument (thermometer) shelter are erected upon a platform which stands 6 feet above a tar and gravel roof, the bottom of the instrument shelter being about 10 feet above the platform. Other platforms, situate on different portions of and raised but a few inches above the roof, are erected for the exposure of the recording rain gage and a stand upon which is placed a nephoscope for cloud observations. The wind vane, anemometer, rain gage, and sunshine recorder are electrically connected with an instrument (meteorograph) in one of the office rooms. Among other features this meteorograph consists of a cylinder upon which is placed at noon each day a sheet ruled

off into five-minute and hour spaces. On this sheet is recorded each minute the direction of the wind to eight points; every minute of sunshine; every mile of wind—the velocity of which can also be determined; and every one one-hundredth inch of rainfall and the character thereof, as to whether light or heavy. The time of the occurrence of the several elements is indicated by the ruled time lines. Together with the meteorograph there are also displayed in the room standard mercurial barometers, a barograph, different styles of psychrometers (for determining the dew point, relative and absolute humidity, and vapor tension of the atmosphere), sunshine recorders and thermometers, and an anemometer. The thermograph and barograph, respectively, continuously record the temperature of the free outside air and the pressure of the atmosphere, and from these records, together with the data recorded by the meteorograph, the meteorological conditions obtaining thruout the day are extracted and entered upon appropriate forms and filed at the station. The original, or copies of these forms, are transmitted to the central office of the Weather Bureau at Washington, D. C.

Eye observations are made twice daily, at 8 o'clock local mean time, of the meteorological conditions obtaining at the time, the principal features of which are cabled to San Francisco, whence they are telegraphed to Washington, D. C., and other important cities of the United States for publication on the daily weather maps and in other reports of the several stations. These eye readings also act as checks on the accuracy of the several recording instruments.

Summaries are made of the hourly, weekly, monthly, and annual values of the several meteorological elements and published in the local newspapers and also by this office.

Substations of the Hawaiian climatological service are located on the several islands. From these substations reports are received, some weekly and all monthly, as a whole or in part, of the highest and lowest temperatures, amount of rainfall, prevailing wind direction, and general character of each day, together with other meteorological phenomena. These reports are summarized and issued to the public in the form of a weekly bulletin, setting forth the general character and especial features of the week last past, and a monthly report, which contains tables giving the highest and lowest temperatures and amount of rainfall on each day, a condensed, summarized table of the general conditions obtaining at a number of selected stations having the necessary data, a summary of the conditions as a whole for each of the six principal islands and for the entire group, and charts of each of the six islands, upon which lines are drawn showing the districts where the temperature and rainfall conditions have been practically the same during the month under discussion. An annual summary of the monthly reports is also issued. These publications are given a wide distribution thruout these islands and the United States, and quite a number are sent to foreign countries. Copies of these publications can be had on request.

On June 30, 1906, reports were received from the following substations:

Island.	Temperature observers.	Rainfall observers.	Weekly correspondents.
Hawaii.....	27	57	28
Maul.....	16	23	8
Oahu.....	21	40	7
Kauai.....	6	28	6
Molokai.....	3	3	1
Lanai.....	1	1	
Total.....	74	152	50

Of these substations, 48 of those reporting temperatures and 52 reporting rainfall are equipped with Weather Bureau standard maximum and minimum thermometers, thermometer shelter, and 8-inch rain gage. As soon as additional instrumental equipments are available efforts will be made to establish substations in the various portions of the several islands from which reports are not now being received.

With and subsequent to the issue of the bulletin for the week ended March 17, 1906, all reference to crops and their conditions have been omitted from the publications of this section.

It was my desire to include some comparative figures of the rainfall and temperatures on the several islands and the different portions thereof, but it has not been possible to get the data in shape for publication.

PROGRESS OF VARIOUS ENTERPRISES.

HAWAII'S TRANSPORTATION FACILITIES.

[By H. P. Wood.]

A glance at the chart recently issued by the Hydrographic Office of the United States Navy Department, giving tracks for full-powered steam vessels, shows Hawaii as the hub of a wheel whose spokes radiate in every direction.

A notable improvement in the transportation facilities across the Pacific Ocean has been made during the past few years and Honolulu, being located at the crossroads of the great ocean trade routes, naturally benefits largely by the better service and resultant increased travel.

Hawaii now has regular and direct steamship connection with China, Japan, the Philippines, Australia, New Zealand, Samoa, Fiji, and the principal ports of California and Oregon on the mainland of the United States.

A line of steam freighters is employed in conveying large shipments of sugar to the Atlantic coast, returning with miscellaneous cargoes. The long route via the Straits of Magellan will soon be abandoned, however, for a more direct and quicker service by way of the Isthmus of Tehuantepec. The harbor works at Salina Cruz, on the Pacific, and Coatzacoalcas, on the Atlantic, are rapidly nearing completion and by the end of December, 1906, the Tehuantepec National Railway will be in a position to handle traffic between the two oceans economically and quickly, thus placing Honolulu directly on the line of what

must rapidly become one of the most important of the world's great trade routes.

The steamship lines now in operation on the Pacific and making Honolulu a regular port of call are:

American-Hawaiian Steamship Company.
Canadian-Australian Steamship Company.
Matson Navigation Company.
Oceanic Steamship Company.
Pacific Mail Steamship Company.
Toyo Kisen Kaisha.

The American-Hawaiian is the freight line before mentioned, which maintains communication between the Atlantic and Pacific coasts.

The Canadian-Australian Steamship Company dispatches a steamer every four weeks from Vancouver, British Columbia, and Sydney, Australia, the boats calling regularly at Honolulu, Suva, Fiji, and Brisbane. The steamers of this line—the *Aorangi*, *Miowera*, *Moana*, and *Maheno*—make the 7,265 miles between terminal ports in about twenty-four days. The *Maheno* is a turbine steamer and has done so well in her first few runs across the Pacific that the company has given orders for two additional steamers of the same class to be used on this route.

The Matson Navigation Company operates two steamers—the *Hilonian*, 1,819 tons, and the *Enterprise*, 1,681 tons—each having good accommodation for between twenty and thirty first-class passengers. The *Enterprise* sails regularly between San Francisco and Honolulu, calling at Hilo, on the island of Hawaii, on the return trip. The *Hilonian* makes the same ports, and also includes Portland, Oreg.

The Oceanic Steamship Company operates four steamers on the Honolulu run, i. e., the *Sierra*, 6,200 tons; *Sonoma*, 6,200 tons; *Ventura*, 6,200 tons, and *Alameda*, 3,200 tons. The first three steamers maintain a twenty-one day service between San Francisco and Sydney, stopping regularly at Honolulu, Pago Pago, and Auckland. These boats have accommodation for 200 first-class and 100 second-class passengers. The steamship *Alameda* of this line plies between San Francisco and Honolulu only. The round trip, including stays in port, consumes twenty-one days, dates of sailing being intermediate with those of the thru steamers.

The Pacific Mail Steamship Company has a fleet of five modern steamers in the trans-Pacific trade, viz, *Manchuria*, 27,000 tons; *Mongolia*, 27,000 tons; *Korea*, 18,000 tons; *Siberia*, 18,000 tons, and *China*, 9,000 tons. All of these five boats make Honolulu a regular port of call. During the past year this company has been operating on the same run the *Coptic*, 4,700 tons, and the *Doric*, 4,500 tons, under the name of the Occidental and Oriental Steamship Company.

The Toyo Kisen Kaisha, a Japanese company, whose steamers were for a time utilized as transports by the Japanese Government, are again making Honolulu a regular port of call. The boats of this line—the *American Maru*, *Hongkong Maru*, and *Nippon Maru*—are each of 6,000 tons burden.

Steamers of the allied three last-named companies leave San Francisco for the Orient via Honolulu about once in every eight days thruout the year. All thru steamers, as a usual thing, so arrange their schedule as to arrive at Honolulu in the morning, staying in port from eight to thirty hours.

Everything in the equipment of the steamships plying across the Pacific is of the most modern type. The boats are large, speedy, comfortable, comparing most favorably with the best Atlantic liners. All parts of the ships are lighted by electricity. The dining saloons are large and beautifully decorated. The social halls and smoking rooms are roomy, and perfect in their appointments. All staterooms are supplied with every convenience and are well ventilated. The bathrooms and lavatories are numerous and are kept scrupulously clean. In fact the requirements of the most fastidious traveler have been carefully studied and provided for in a satisfactory manner.

In addition to the steamship service a number of swift sailing vessels, fitted specially for passenger traffic, ply regularly between Honolulu and Pacific coast ports.

Since the discovery of practically unlimited supplies of fuel oil on the coast of California the different industries thruout the islands have become large consumers of this product, two lines of tank steamers being regularly engaged in supplying the Honolulu market.

The world's greatest development is now taking place in the countries bordering on the Pacific Ocean. New trade routes, such as will be opened up by the short transcontinental haul across the isthmus of Tehuantepec and the operation of the Panama Railway by the Government of the United States on equal terms to all, must add greatly to the prestige of Hawaii, and will tend to make of Honolulu the clearing house of the Pacific, even prior to the completion of the Panama Canal.

Hawaii is also in the center of the Sunshine Belt across the Pacific, and the climate and scenery of the islands are so attractive that an ever increasing number of tourists and homeseekers must continue to come to these hospitable shores, particularly as the ocean voyage can now be made so easily and comfortably.

It should also, perhaps, be stated here that the transportation facilities for freight and passenger business between the different islands comprising the Territory of Hawaii are both ample and satisfactory.

The following table shows the arrivals and departures of first and second class passengers at Honolulu, respectively from and for the points designated, for the year ended June 30, 1905:

Date.	Australia.	British. Columbia.	Orient.	San Fran- cisco.	Total.
<i>Passengers arrived.</i>					
1905—July	25	12	21	268	326
August	5	20	5	175	205
September	14	14	16	296	340
October	17	16	12	256	301
November	15	42	17	365	439
December	19	11	15	451	496
1906—January	22	6	22	240	290
February	15	30	14	360	419
March	11	5	21	316	353
April	28	1	24	116	169
May	5	13	21	262	301
June	7	13	42	169	231
Total for year	183	183	230	3,274	3,870

Date.	Australia.	British Columbia.	Orient.	San Francisco.	Total.
<i>Passengers departed.</i>					
1905—July.....	12	37	12	290	351
August.....	2	25	15	325	367
September.....	7	12	12	257	288
October.....	7	6	26	164	203
November.....	5	9	25	145	184
December.....	8	9	19	110	146
1906—January.....	7	6	12	215	240
February.....	1	11	62	161	235
March.....	3	12	80	338	433
April.....	5	30	12	344	391
May.....	9	2	21	220	252
June.....	2	11	27	199	239
Total for year.....	68	170	323	2,768	3,329

Excess arrivals over departures, 541.

Table of distances by full-powered steam vessels from Honolulu to the leading ports of the Pacific.

	Miles.		Miles.
Acapulco.....	3, 310	Punta Arenas.....	6, 379
Apia.....	2, 240	Salina Cruz.....	3, 580
Auckland.....	3, 850	Sandakan.....	4, 980
Bonham Island.....	2, 098	San Diego.....	2, 280
Callao.....	5, 147	San Francisco.....	2, 100
Christmas Island.....	1, 075	San Pedro.....	2, 250
Guam.....	3, 337	Seattle.....	2, 400
Hongkong.....	4, 961	Shanghai.....	4, 333
Jamestown Harbor.....	2, 602	Sitka.....	2, 395
Levuka.....	2, 736	Sydney.....	4, 424
Manila.....	4, 803	Tahiti.....	2, 389
Midway Island.....	1, 160	Unalaska.....	2, 016
Pago Pago.....	2, 263	Ulan.....	2, 445
Paita.....	4, 777	Valparaiso.....	5, 916
Panama.....	4, 665	Vladivostok.....	3, 736
Petropavlovsk.....	2, 770	Wellington.....	4, 163
Portland.....	2, 250	Yokohama.....	3, 445

Honolulu to New York, via Cape Horn, 14,970 miles; Magellan Strait, 13,200 miles; Panama, 6,690 miles; Salina Cruz, 5,500 miles.

Rates of fare from Honolulu.

To—	First-class.	Second-class.	Steerage.
Auckland.....	\$125.00	\$90.00	\$75.00
Brisbane.....	150.00	90.00	62.50
Hongkong.....	175.00	.....	100.00
Manila, by direct steamer.....	175.00	.....	100.00
Manila, via Hongkong.....	a 22.00	.....	.....
Pago Pago.....	85.00	65.00	50.00
San Francisco.....	75.00	50.00	30.00
Shanghai.....	175.00	.....	100.00
Suva, Fiji.....	100.00	75.00	50.00
Sydney.....	150.00	90.00	62.50
Vancouver.....	75.00	45.00	25.00
Victoria.....	75.00	45.00	25.00
Yokohama.....	150.00	.....	85.00

a Additional.

The cost per mile of first-class fare between Honolulu and the ports named below, in cents, is as follows:

San Francisco, 3.57; Victoria, British Columbia, 3.05; Pago Pago, 3.75; Auckland, 3.776; Sydney, 3.39; Suva, 3.655; Yokohama, 4.35; Hongkong, 3.548; Shanghai, 4.039; Manila, direct, 3.64, via Hongkong, 4.1.

OAHU RAILWAY AND LAND COMPANY.

[By WALTER F. DILLINGHAM.]

During the past twelve months the Oahu Railway and Land Company has constructed and put into operation a branch line of railway 10 miles in length extending from the Waipahu station up the Waikakalaua gulch to the farm colony town-site of Wahiawa. The branch starts from the main line at a point a few feet above sea level and the highest point reached is at the colony settlement, which is 923 feet above sea level. The maximum grade is 3 per cent. The rails are 48-pound American steel. The ties are redwood and on the curves ohia wood. The gulch up which the branch line runs cuts thru the center of the Oahu plantation. Above the plantation boundary the road crosses the grazing land of Hoaeae and Waipio and enters the government lands of Waianae uka, which extend to the Kaukonahua stream and colony boundary. The inducement for the construction of this road at this time is the rapid development of the pineapple industry at Wahiawa. Small settlers have taken up homestead lands, and these lands, together with the adjoining government land of Waianae uka, have been brought under the control of several planting and canning companies. There are now under cultivation some 1,300 acres of land, and it is anticipated that during the next two or three years a large portion of the table-land between the Oahu plantation and Waialua plantation, consisting of approximately 14,000 acres of arable land, will be under cultivation. A large portion of this table-land which is made accessible by this branch of railroad, while not suitable for pineapple raising owing to lack of water, is well adapted to the growing of sisal. Plans are under way for the forming of a company to push forward this new industry. The freight output of Wahiawa colony in 1905 was approximately 2,500 tons. It is estimated that this output will be increased during the next four or five years to more than 10,000 tons per annum. The cost of the line is approximately \$140,000.

KOOLAU RAILWAY COMPANY.

This company was incorporated on August 9, 1905, and the contract with the superintendent of public works entered into on August 25 of the same year. Under its charter the company is authorized to build a line of steam railroad from Kahuku Mill, which is situated at the most northerly point of the island of Oahu, in a southeasterly direction along the coast thru Koolauloa, Koolaupoko, and on to Honolulu. Shortly after the granting of the charter the work of procuring rights of way was commenced, but owing to the fact that the location of the line necessitated the crossing of many small holdings and thru lands under the cultivation of rice the usual delays and difficulties have been experienced. Rights of way have now been secured as far as Punaluu, a distance from Kahuku Mill (the point of commencement) of 10 miles. The grading is well under way and it is expected that the road will be in operation for freight and passengers by November 1, 1906. The rails are American steel, 35 pounds. Ties are California redwood, and the gage the same as the Oahu Railway and Land Company's standard, 3-foot. This line connects with the main line of the Oahu Railway and Land Company at Kahuku. The Koolau Railway opens up for agricultural purposes tracts of land above the rice land

now under cultivation. The area of new land made available by the construction of the railroad from Kahuku to Punaluu is approximately 1,000 acres. Transportation facilities are afforded the rice planters, who have in this first 10 miles about 1,500 acres under cultivation. By continuing the line thru Koolaupoko, the lands of Kaneohe, Kaalaea, and Heeia are furnished with transportation facilities, making possible the development of lands which up to the present time have only been used for grazing purposes. The estimated area of grazing land which becomes available for agricultural purposes amounts to from 3,000 to 4,000 acres. The policy of the Koolau Railway Company, so far as extending its line across the district of Koolaupoko, will depend largely upon the success of the plan of interesting small settlers in the taking up of these new lands.

The extension of the Oahu branch line to the Wahiawa colony and the extension of the main line thru the construction of the Koolau railroad line marks a direct step toward the opening up of lands available for small farmers. Up to the present time the direct inducement to railroad companies for the construction of lines has been the development of large sugar corporations; but this year's work is consistent with the growing idea of offering lands with transportation facilities to small citizen settlers in the Territory.

IRRIGATION IN HAWAII.

[By J. T. McCrosson.]

The plantations of the Kohala and Hamakua districts are among the oldest and have been in years past among the most productive of nonirrigating plantations on these islands. Owing to the destruction of the forests on the highlands behind the plantations the rainfall during the last twenty-five years has been constantly decreasing, and notwithstanding an increase in acreage the annual output in sugar has greatly diminished.

The Kohala Mountains, between 4,000 and 5,000 feet elevation, and lying directly in the path of the rain clouds forced by the trade winds between the high mountains of Mauna Kea, on the island of Hawaii, and Haleakala, on the Island of Maui, furnish one of the best watersheds on these islands. It has long been the desire of the owners of the various plantations in Kohala and Hamakua to obtain a water supply for domestic and irrigating purposes, because during many of the seasons of drought the Hamakua plantations in particular have been compelled to cart water from the mountain streams for the purpose of supplying their laborers and animals with this most needful liquid.

One of the first attempts to investigate the watershed under discussion was made during the summer of 1880, when George C. Williams, then manager of the Kohala plantation, commissioned the writer to ascertain the feasibility of obtaining water for fluming purposes for the above plantation. A most bountiful supply was found to exist in the numerous permanent streams, but owing to the excessive cost of bringing the same onto the plantation and the lack of cooperation among the various interests in Kohala Mr. Williams abandoned the proposition. In 1883 or 1884 Mr. H. P. Baldwin, in company with Mr. Schussler, of San Francisco, made a partial investigation of the Kohala Mountains from the Hamakua side for the

purpose of furnishing water to the plantations in Hamakua. Owing to more important business requiring Mr. Baldwin's attention on Maui the investigation was dropped.

In 1888-89 the Hawaiian government, thru Mr. J. M. Lidgate, made a thoro examination of the upper portion of the Kohala Mountains in Hamakua for the purpose of furnishing water for fluming and domestic purposes to the Hamakua plantations. Mr. Lidgate found that a daily supply of about 7,000,000 gallons could be obtained from the high elevations where he proposed locating his ditch. This water would have come from the Waipio streams, but he stated that it would not in any way interfere with the valleys below, as at no time would the 7,000,000 gallons proposed to be taken "exceed the one-hundredth part of the Waipio system."

The next investigation made in these mountains was conducted by Mr. W. W. Bruner, in 1892, for the Hawaiian government, and was made from the Kohala side of the mountains for the purpose of furnishing a domestic supply to the plantations and homesteads in the Kohala district. This survey, like that of Mr. Lidgate, was made near the top of the watershed under investigation, and to keep up the parallel the report and maps were carefully stored away in the archives of the minister of the interior.

The impetus given the sugar business by annexation to the United States caused some of the plantations in Kohala to install expensive pumping machinery to raise water for irrigating their cane lands. This indication that the plantations were in earnest in their desire for water induced the writer to visit Hawaii in 1900, and to make a more extended investigation into the quantity of water to be obtained and the approximate cost of conducting the same to homesteaders and plantation consumers. After spending several months studying the situation, I became convinced that it would prove a good commercial proposition to conserve the mountain water then running waste into the sea, leading it to consumers in the districts east and west of the watershed.

During 1901 and part of 1902 the Bernice P. Bishop Museum trustees and the trustees of the Bishop estate made the most thoro and exhaustive examination of the Waipio and Honokane water resources that has ever been made in the Kohala Mountains. Very fortunately this investigation was made during one of the most severe droughts that has been recorded in Kohala or Hamakua, and the data can be relied upon as being the minimum flow of the streams gaged.

Early in 1901 an application was made by Col. S. Parker, the lessee of a considerable portion of the Kohala Mountains, to the territorial government for a franchise or license to take the water from the government land in the Kohala Mountains for the purpose of conducting the same to homesteaders and plantation consumers. Almost immediately after it became known that Colonel Parker and his associates had applied for a franchise to develop the water in question, numerous other applicants and claimants appeared, all asking for the franchise and expressing their willingness to spend their time and money for the benefit of the people of Kohala and Hamakua.

After three years of investigation in Honolulu and Washington as to the rights of the various claimants, the matter was brought to an issue by the territorial officials submitting the franchise to public

competition at an upset price. The agent of Colonel Parker and associates became the purchaser, and in the latter part of January, 1905, work was commenced on the Kohala ditch.

This ditch consists of two sections. The first section from Hawi plantation to Honokane (the first large mountain stream) is more than 13 miles in length, and consists of 9 miles of tunnels, one-half mile of fluming, and 4 miles of open ditching. The tunnels and open ditching are all lined with concrete or stone set in cement mortar, making a permanent job and reducing seepage to a minimum. This first section was completed on June 1 of this year and is now supplying its consumers with an average of 19,000,000 gallons daily. The ditch has a capacity of 70,000,000 gallons daily, and delivers the water on the plantations at an elevation between 1,000 and 950 feet.

The second section of the Kohala Ditch runs easterly from Honokane to Laupahoehoe No. 2, and is $6\frac{1}{2}$ miles long, being nearly all tunnel. This work will be completed early in 1907 and will furnish sufficient water to develop at least 6,000 acres of new land between Hawi and Mahukona. There are many thousands of acres of good land belonging to the government which will be made most valuable by the completion of the Kohala Ditch proper and the construction, later, of an auxiliary ditch at a much higher elevation, which will be capable of carrying off the storm waters in the mountains and storing them in suitable reservoirs, from which they can be conducted to the homesteader and planter below. The present ditch is capable of caring for only a small portion of the water that at times runs waste to the sea.

In March of the present year the Hamakua Ditch Company began the construction of the Hamakua Upper Ditch, which will take water from the Kohala Mountains in Puukapu for the use of the homesteaders and planters in Hamakua to flume the cane from the highlands to the mills. This ditch will mean success to the many homesteaders now located in Hamakua. The cost of carting their cane to the mills is so great that many of them have been compelled to give up planting, but with a prospect of obtaining water for fluming purposes many of the people are again going into cane planting. I may here mention that the management of the plantations in Hamakua are doing everything in their power to encourage the homesteaders, offering them free water for fluming and remunerative prices for all cane grown by them.

The Hamakua Lower Ditch has not gone further than the preliminary surveys. Actual construction work will probably be commenced within the next two months. The completion of these two ditches in Hamakua will mean much for that district, insuring a good crop annually and taking the plantations out of the speculative category in which they have been for so many years.

The combined cost of the Hamakua upper and lower ditches will exceed \$1,000,000.

ELECTRIC INSTALLATION IN THE TERRITORY OF HAWAII.

[By A. GARTLEY.]

There are but two central station light and power companies in the Territory of Hawaii, one in Hilo and one in Honolulu.

The Hilo plant is a water-driven plant operated with Pelton water wheels, the combined capacity of the wheels being 750 horsepower. The electric equipment of the station consists of three alternating-current generators, delivering 2,100-volt, 2-phase current of 7,200 alternations. These are Westinghouse generators and have a combined capacity of 450 kilowatts. Light is supplied from a 105-volt service and 2-phase power is supplied from the same machines and a monocyclic.

Light and power is supplied commercially in Honolulu by the Hawaiian Electric Company, Limited. The station is a steam-driven station, there being three 2,200-volt, 2-phase, 7,200 alternations per minute, Westinghouse generators of 850 kilowatts capacity, and three 500-volt, direct-current Westinghouse power generators of 400 kilowatts capacity. Lighting is supplied from alternating-current machines on a 2,200-220-110-volt service, and power is supplied from direct-current machines of 500 volts. The company is supplying more than 2,000 customers and has connected to its service 36,000 16-candle-power incandescent lamps, 225 arc lamps, and 520 horsepower in motors.

The Territory of Hawaii operates a water plant for furnishing lights to the territorial buildings and arc lights for street lighting purposes. This plant is situated in Nuuanu Valley. At present there are installed one 200-kilowatt, 3-phase, 7,200 alternations, Westinghouse alternating-current generator, direct connected to a Pelton water wheel, with one 200-kilowatt Westinghouse generator as an auxiliary.

The only street-railway plant in operation in the islands is the plant of the Honolulu Rapid Transit and Land Company in Honolulu. This plant is equipped with three 300-kilowatt, engine-driven, 500-volt, Westinghouse railway generators and 47 cars equipped with double equipments of 35-horsepower Westinghouse motors.

Aside from these stations electricity is quite extensively used in individual plants scattered thruout the islands, particularly steam-driven, direct-current plants on the sugar plantations. These individual plants vary in size from 5 to 225 kilowatts each.

There are also five alternating-current generating plants installed for supplying current to motors driving pumps for irrigating purposes.

The earliest pumping installation was at Waianae plantation on the island of Oahu. Here water is delivered to Pelton water wheels under a static head of 400 feet, driving two 200-kilowatt, 3-phase generators. The power is transmitted a distance of 5 miles and utilized in operating one fly-wheel pump belted to a 75-horsepower motor, lifting 1,500,000 gallons of water every twenty-four hours to a height of 150 feet. Another pump belted to two motors of 150-horsepower each delivers 5,000,000 gallons of water to a height of 280 feet. The entire plant is a general electric plant, with the exception of the 75-horsepower motor, which was built by the Westinghouse Company.

The Pioneer Mill Company, at Lahaina, Maui, has installed a 250-kilowatt, 3-phase, general electric, alternating-current, 6,600-volt

generator direct connected to a Pelton water wheel operating under a static head of 365 feet. Power is transmitted a distance of 6 miles to a pumping station, where current is used to operate a 200-horsepower, 440-volt motor belted to a triplex pump, which delivers 9,000,000 gallons of water against a 100-foot head.

At the plantation of the Oahu Sugar Company on the island of Oahu a small generating plant is installed adjacent to the pipe line of one of the high lift pumps, and water which is taken from the pipe line for irrigation on the lower levels is utilized to produce power for operating a pump some 2 miles distant. This plant consists of one 120-kilowatt, 3-phase, 2,200-volt Westinghouse generator belt, driven from a Pelton water wheel. The current is transmitted to a pumping station and used in a 100-horsepower, 2,000-volt Westinghouse motor to operate a centrifugal pump.

During the past year a large pumping installation has been placed on the plantation of the Makee Sugar Company, at Kealia, Kauai, which is rather unique in its design. Water is supplied from a small mountain stream having from 5 to 8 cubic feet per second flow and a head of 400 feet, the peculiarity of the system being the use of a variable-speed water wheel and electric transmission at variable voltage and variable frequency with constant current. The plant is designed to utilize the entire flow of water in the stream by adjusting the speed of the motor driving the pump to suit. The arrangement used to accomplish this control wholly from the generating station is by variation of the line voltage and frequency, the water heads at both the power and pump being constant, the amounts of water pumped vary in direct ratio to the flow of water to the power house. A reciprocating flywheel pump is installed, and it is therefore necessary to vary the speed of the motor in direct proportion to its load, assuming that this can be done without a material reduction of efficiency in the motor. At the power-generating end there is a special Pelton water wheel having six Pelton disks of different diameters, so that with a constant spouting velocity and different quantities of water and constant bucket speed, six different speeds in revolution are obtained. A 300-kilowatt generator is coupled directly to the water wheel and has an output varying directly with the speed. The generator is supplied with a constant magnetic current from a separate exciter, and the voltage produced by the generator and its frequency will, therefore, vary with the number of the revolutions. The current generated and sent out over the transmission line should, therefore, be substantially constant. The speed varies, depending upon the available water supply and the particular Pelton disk that is used. The voltage and frequency increase or decrease as the speed increases or decreases. An automatic regulator maintains the voltage of the exciter constant.

At the receiving end, 5 miles from the power house, a 225-horsepower, 3-phase induction motor is rope-belted to a duplex flywheel Riedler pump. This pump is to operate against a gross head of 250 feet and deliver 2,800 gallons of water per minute at a maximum of 116 revolutions per minute. The head remains constant and should the generating plant reduce its speed and the voltage and frequency be reduced this induction motor would have a corresponding reduction

in speed and pump less water. It is estimated by the builders that an efficiency can be maintained of 48 per cent, from water to water.

This plant has not yet been completely tested out and it is impossible at the present time to predict what efficiencies will obtain thru-out such a wide variation in speeds of the different apparatus. All this apparatus was supplied by the Allis-Chalmers Company.

This power plant also operates a 100-horsepower Westinghouse motor in the mill and several smaller motors.

By far the most important electric development which has taken place in the Territory of Hawaii has been the installation of a high-tension transmission plant by the Kauai Electric Company on the island of Kauai. The object of this plant is to generate power from a mountain stream in Wainiha Valley and utilize the same in operating pumps on the plantation of the McBryde Sugar Company, a distance of 35 miles.

Water is taken from the Wainiha stream at an elevation of 710 feet and carried thru a conduit consisting of tunnels and ditches about 5 miles long to an elevation of 562 feet above the centers of the wheels at the power-house site.

At the power house there are two 1,200 kilowatt, 2,200 volt, 3-phase, 3,000 alternations per minute generators, each direct connected to a Pelton water wheel having two overhung, Pelton disks forced to the ends of the generator shaft.

Current is stepped up thru two banks of transformers to a voltage of 33,000 and carried over a 3-phase high-tension line of 103,850 circular mills aluminum cable for a distance of 35 miles.

The current is received at the McBryde plantation at a central station in Hanapepe Valley, where water has been developed by sinking shafts and extending tunnels. The current is stepped down thru step-down transformers to 2,200 volts and carried to the different pumping stations, to be utilized in motors direct connected to pumps of the multiple stage centrifugal or turbine types.

At the present time there are installed and in operation on this service four large pumping units, consisting of two 500-horsepower motors connected to pumps of 5,000,000 United States gallons daily capacity each against a head of 341 feet; one 500-horsepower motor connected to a pump of 6,500,000 gallons daily capacity against a head of 260 feet; one 150-horsepower motor connected to a pump of 3,500,000 gallons daily capacity against a head of 168 feet.

Additional pumps are to be installed, of large capacity and high lift, one to be operated by a 1,000-horsepower motor and another by a 350-horsepower motor. A 150-horsepower motor is also to be used for developing purposes on the plantation, thus making a total motor installation of 3,300 horsepower to be operated from this plant.

The Kauai Electric Company is capitalized for \$300,000 and has an outstanding bond issue of \$150,000 of 6 per cent bonds. Counting fixt charges against this plant, it is estimated that the pumping cost can be reduced to one-third the cost of pumping by steam power.

It is hoped that many other uses will be found for electric current by the McBryde Sugar Company, including loading at the wharves and the operation of plows which are now operated with steam.

Further developments on the island of Kauai are in prospect, and it is safe to predict that ultimately there will be an electric belt line railway around fully two-thirds of the island of Kauai.

The Kauai Electric Company was financed by local people and the plant was designed and built by the Hawaiian Electric Company and the Honolulu Iron Works. The electric machinery was furnished by the Westinghouse Electric and Manufacturing Company and the water wheels by the Pelton Water Wheel Company.

Almost all the development which has been outlined above has taken place since the annexation of the islands by the United States.

A table is added which shows that American manufacturers of electric machinery have cause to congratulate themselves, as 99½ per cent of all the machinery in the Territory of Hawaii is of American manufacture. The only machinery outside of American machinery is that of Siemens-Halske, German manufacturers.

Horsepower of electric apparatus, and manufacturers of same.

	Westinghouse.	General Electric.	Bullock.	Siemens-Halske.	Other made in the United States.
A. C. generators.....	6,752	1,000	400	40	.....
D. C. generators.....	2,775	1,093	392	48	72
A. C. motors.....	3,913	666	200	.....	.....
D. C. motors.....	803	73	20	15	243
R. R. motors.....	3,340	140	.....	.....	.....
Total.....	17,583	2,972	1,012	103	315
Per cent of total.....	80	13.5	4.6	0.5	1.4

Total horsepower installed, 22,015.

AGRICULTURE AND FORESTRY.

[By DANIEL LOGAN.]

Since its reorganization, three years ago, under a statute creating the board of commissioners of agriculture and forestry, the agricultural bureau of the government of the Territory has developed a high degree of usefulness. Its four divisions—agriculture, animal industry, entomology, and forestry—are all being effectively conducted according to modern scientific standards by the commissioners thru educated specialists in the respective lines. Some of the heads of divisions have their professional credentials from the Department of Agriculture, Washington. The division of agriculture acts in direct cooperation with the United States Agricultural Experiment Station at Honolulu.

Prior to the reorganization just mentioned, the bureau of agriculture had for some years maintained an invaluable entomological service. In conjunction with the sugar planters, it secured the services of Prof. Albert Koebele, a leading demonstrator of the method of combating insect blights and plant pests with their natural enemies—parasites that wage deadly warfare against such destroyers of vegetation. This scientist had already, before employment here, done a great deal for the salvation of the grape-growing and citrus fruit-raising industries of California. He has alternated his work in these islands—investigating visitations of pests and applying the antidotes thereto, besides creating an extensive collection of entomological specimens—with the exploration of distant countries in search of

beneficial parasites. For some years he had an able assistant in Dr. R. C. L. Perkins, now at the head of the planters' entomological service, whose title came to him recently in the form of the degree of LL. D. from Oxford University in recognition of his natural history researches and authorship.

Outside of its entomological work the functions of the old bureau were chiefly the maintenance of a nursery for the propagation of trees and plants, including the cultivation of a forest in the mountains behind Honolulu, together with the importation of trees, plants, and seeds. In this traffic with other countries a system of exchange, as well as purchase, was employed. The nursery and forest mentioned had received support from the public treasury for more than twenty years, but the entomological work had been of comparatively recent origin. There is no disparaging of the value of the services rendered in all those years when it was but a nucleus of the present comprehensive and symmetrical institution. It clothed a large area of bare mountain slopes and summits with a luxuriant forest. It created a botanical garden in Honolulu, which is one of the city's beauty spots. It furnished the inhabitants of town and country, by free distribution, with thousands of trees and plants to beautify their home plots. It effectually checked or totally extirpated many pests that, imported from abroad, had threatened to devastate the vegetation of the group. Tho its organization and resources both were inadequate, it had a fairly liberal support in the biennial appropriation bills; also some enabling legislation for its protective work.

For about a quarter of a century the sugar industry, preponderating over all others in the production of wealth, has proved well able to take care of itself in scientific development, thru the medium of an organization that has never lapsed or weakened. Incidentally the sugar planters' association has also promoted general agricultural interests by more or less attention to diversified products—stock raising and forestry. It has cooperated with the public bureau of agriculture, before and since the latter's reorganization, by liberal contributions to the employment of specialists, notwithstanding its establishing of a large experiment station of its own, which employs scientific experts of highest standing in such divisions as chemistry, entomology, and plant pathology. An instance of such liberality is the engagement by the association a few years ago to pay a moiety of the salary of the present superintendent of entomology and plant quarantine inspector, whose services in the latter capacity for many years at the port of San Francisco were esteemed so valuable by the board of agriculture of California that unusual inducements were required to bring him to Honolulu.

Appended to this report will be found an article by Mr. Hosmer, superintendent of forestry, which gives a résumé of the work of his division for the year under review. Some mention of the other divisions may here be made.

In his latest annual report to the board of commissioners, Mr. Alexander Crow, superintendent of entomology and inspector, says: "During the year 1905 there were examined 293 vessels, on which we found 104,829 packages of fruit, vegetables, etc., as freight, and during the same time we had 249 packages by mail." This work, including the fumigation of the merchandise, when found necessary, with hydrocyanic-acid gas and carbon-bisulphide fumes, was done

by Mr. Craw and Mr. C. J. Austin, his assistant inspector. Several notable instances of signal protection from pests thru the inspection of imports are reported. In November and December various consignments of citrus fruits, aggregating 2,950 cases, arrived from China and Japan, which, being found seriously infested with injurious insects and diseases, were all destroyed by burning. Again, 150 orange trees infested with leaf-miners from Japan were burned.

Another great service was rendered to the Territory when Mr. Craw interfered with the attempted importation, for show purposes, of 14 large and living snakes, 5 of them the deadly rattler. To avoid legal complications, two of the commissioners of agriculture and the collector of customs paid to the importer the value of the reptiles, which forthwith were destroyed and their carcasses preserved among the exhibits of the bureau museum. Best of all, the incident led to an order from the Secretary of Agriculture, Washington, prohibiting the importation of snakes into Hawaii. As the superintendent says in his report, "The Hawaiian Islands have always been famed for their freedom from snakes, and our people and animals could wander with impunity through our valleys and over hills and mountains."

Mr. Jacob Kotinsky, a learned specialist, is the assistant entomologist, doing both laboratory and field work. His reports, made frequently to the board, are of great value, as also circulars for public information which he writes. He travels within the group occasionally to investigate pests in different localities. The breeding of beneficial insects, collected abroad by Professor Koebele, is a considerable part of the laboratory work. During the calendar year 1905 a total of 64 colonies of 24 species of insects, aggregating 5,000 specimens, were distributed over the four principal islands. When it is stated that the pest known as the cane-leaf hopper that caused a loss of over \$3,000,000 in a single sugar crop, has been effectually subjugated within the past few years by the combined efforts of the Territory's and the planters' entomologists, some idea of the importance of this particular service may be comprehended.

Latest in organization, the division of animal industry has given evidence of value to the Territory which can hardly be estimated as yet. Altho the successive governments of the Hawaiian Islands for more than twenty years had employed veterinarians, both the support and the scope given to this service were rather limited. Now and then such an emergency as a visitation of glanders brought the services of the official veterinarian into prominence, which otherwise were of a desultory nature, excepting for the inspection of slaughterhouse stock. On July 1, 1905, negotiations begun by the Stock Breeders' Association ended in the board of commissioners securing the services of Dr. Victor A. Norgaard, V. S. (Copenhagen), furnished by the Bureau of Animal Industry in the Department of Agriculture in Washington and the Stock Breeders' Association, who on that date entered upon his duties as the head of a local division of animal industry in these islands. Doctor Norgaard immediately on taking office outlined in writing to the board a general policy to be pursued by him as Territorial veterinarian "in carrying out the law enacted by the last legislature for the suppression and eradication of infectious, contagious, and communicable diseases among the live stock in this Territory."

Passing over a large body of information and advice since communicated to the board by Doctor Norgaard, in special reports and in his regular report at the end of the year, relating to specific diseases and pests found by him among the live stock of the islands, special mention will here be given to but one subject on which the board, and thru it the public, have been enlightened by the veterinary chief. It is a subject vitally affecting the animal industry of Hawaii, upon which both the subsistence and the prosperity of the inhabitants greatly depend. Doctor Norgaard has made a discovery that will undoubtedly lead to changes in the feeding of animals, from which a vast improvement in the live stock of the Territory may be expected.

After visiting the principal islands, Doctor Norgaard formed the general impression "that all classes of live stock in the islands fail, in a more or less pronounced degree, to attain the size and quality which the apparently perfect climatic conditions would warrant, and that the young stock matures slowly." "I was at first inclined," the veterinarian proceeds, "to ascribe this to inbreeding, but soon found that even where fresh blood has been introduced regularly the offspring frequently failed to attain the size and development which characterize similar breeds on the mainland and in other countries. Still, there seemed nearly always to be an abundance of feed, and such conditions as in other countries are considered detrimental to the development of stock—a more or less prolonged winter, for instance—were unknown here." Making a specific comparison between the conditions here and in the Southwestern States, which shows these islands to have a great advantage but with less favorable results in stock raising, Doctor Norgaard finds it evident that in Hawaii "something is lacking in the soil, and consequently in the feed, the absence of which prevents growth and development. I do not mean to imply," he explains, "that this is the case everywhere in these islands. There are no doubt places on certain islands and pastures on certain ranches, where the grasses contain everything required for the development of certain animals, but most frequently such localities are utilized for other purposes, and such pastures are generally used as fattening paddocks and not as breeding paddocks, and in neither case do the young animals obtain what they require. It was not until quite recently, however," Doctor Norgaard goes on to say, "that this deficiency in food was brought so forcibly to notice that it became evident that the losses therefrom were very great, and that measures should be taken to check the same." He mentions some of the effects of the malnutrition upon cows and calves, as noted below, and concludes that the discovered condition of "osteomalacia, or softening of the bones, is due simply to an insufficiency or total absence of lime salts in the food."

Right here is an opportunity to emphasize my appreciation of the great services rendered to our agricultural interests by the Federal officials stationed here. Doctor Norgaard, continuing on the subject of the discovery just mentioned, says: "The observation of this disease in certain sections of Hawaii and Maui at once threw light on a number of conditions thruout the islands which hitherto had been more or less mysterious, and when I was informed by Dr. Jared Smith, of the United States experiment station, that a number of chemical analyses of grasses from various parts of the islands had revealed a deficiency in lime salts, I felt convinced of having reached the root of many evils, and began to realize that much could be done to remedy them."

Here a brief summary of the evil conditions in question prevailing among the live stock on different islands may be presented. On the island of Hawaii a number of animals, especially calves, yearlings, and heifers with their first or second calf, have been dying. This is particularly the case on "Hilo grass" ranges, and even tho these are covered with green, succulent grass and the animals eat an abundance thereof, they have the appearance of starving. They become weaker and weaker, and finally lie down and die, the death struggle often lasting twenty-four hours or more. While the post-mortem examination reveals no disease or infestation of parasites, the blood is thin, the muscles are pale and flaccid, and the bones are brittle as intempered clay. In certain sections of Hawaii and Maui the veterinarian had noticed that fractures of bones in grown animals—cows, steers, bulls, and especially "bullock" horses—were more common than in most other cases. During the year he had seen or heard of at least twenty cases of broken legs, not counting any which might have occurred on lava flows, and he felt convinced that even tho the surface of the islands for the greater part is rough and stony, so many fractures would not occur unless there was something materially wrong with the bones of the animals. Another disease of the bony system which prevails to a great extent is osteoporosis, or big head, in horses and mules. These animals, moreover, lack bone, develop slowly, and mature late, and unless grain fed or supplied with feed containing lime salts fail to attain size. There is an abundance of horses in the islands, but they are of little value for the reasons mentioned, and both mules and horses are constantly imported in considerable numbers. In the year 1905 over \$60,000 worth of mules were imported. With regard to sheep it is the same story. On Molokai all lambs are born strong and well developed, and so long as they receive plenty of lime salts thru their mothers' milk they gain rapidly in size and weight. When weaned at 4 months the majority average 50 pounds in weight. But no sooner are the lambs weaned than an almost complete standstill in the development takes place. When 12 months old they weigh only from 60 to 70 pounds, the best lambs of the following season being heavier than the less good yearlings. In such conditions is found an explanation of the fact that the domestic supply of sheep does not satisfy the demand. There are approximately 100,000 sheep in the islands, yet in 1905 there were imported from California for the Honolulu market 3,013 carcasses of mutton, of a net value of \$13,341. As Doctor Norgaard says, it is not the actual loss by death which results in certain sections of the Territory from this deficiency in mineral matters in the grasses which is of most economic importance, but the incalculable waste of time and material resulting from an "unbalanced ration." Excepting this one deficiency, the veterinarian finds "that every other requirement for making this Territory an ideal place for live-stock raising is present."

The animal industry of Hawaii stands easily next to that of sugar production in importance. It supplies the bulk of the home consumption of fresh meats. There is a very great demand for horses and mules for draft and traveling purposes, as also for use by stock-range riders, which the domestic industry also in large part supplies. Therefore the untoward conditions affecting stock raising which the Territorial veterinarian discloses make a rather dismal picture. It

would be a poor result of the employment of a high order of professional skill, however, which went no further than revealing the bad conditions and did not indicate a remedy. This happily is not the case here. Doctor Norgaard has advised the board, with ample elaboration, as well as directly apprised stock raisers, of means whereby the depressing cause may be overcome.

Ascribing "the failure of the live-stock breeders to supply the local demand for all classes of live stock and their products to a more or less pronounced deficiency in mineral matters, especially phosphate of lime, in the soil and subsequently in the grasses of this Territory," he comes to the conclusion that there are two ways in which the deficiency can be made good: "Either by liming the soil or by giving the lime salts to the animals direct. As the first is out of the question, owing to the large acreage which would have to be treated, the administration of lime salts, in the form of licks, must be resorted to. * * * The safest and cheapest method is to place an abundance of bone meal, mixt either with salt or with molasses, where the animals can have constant access to it." He relates an experiment made on a ranch on Hawaii this year which so well sustained the theory that the ranchman declared his intention of extending the method by distributing feeding boxes containing the prescribed compound to different parts of the range. Molasses is a cheap article here, and Doctor Norgaard indicates a source of supply of bone meal when, in advocating the conversion of waste products into pork, he says there are thousands of worthless animals now consuming a large proportion of the grasses of the islands, for which their hides and carcasses will never pay—wild cattle and goats, old cows, superannuated horses and donkeys, and ranged-out ewes—which could be killed, boiled down, and converted into pork when fed with molasses and roughage. In this connection he mentions the annual importation of hogs to the value of between \$35,000 and \$40,000.

The work of the division of agriculture is carried on by the Federal experiment station. This is to avoid duplication of effort. An appropriation of about \$8,000 was made by the legislature for assistance to the station. In the annual report of the board covering the year 1905 the following appears:

The most important work done by that station during 1905 has been the continuing of the tobacco experiment station at Hamakua. The experiment has met with a high degree of success. Tobacco of good quality and in quantity per acre amply sufficient to make it commercially profitable has been produced.

Examination of the product by a number of tobacco experts resulted in the verdict that the best samples would market either in Europe or the United States as the best high-grade tobacco. That the percentage of the high-grade article was not greater is undoubtedly due to lack of experience in curing the tobacco.

Mr. Jared G. Smith, special agent in charge of the station, in his report to the board for 1905, enters into details of the tobacco experiment. The station had paid much attention to horticultural work the same year. To assist and encourage the cultivation of citrus fruits it had prepared a bulletin on "Citrus Fruits in Hawaii," which has been issued by the Department of Agriculture, Washington. A press bulletin on "Rubber in Hawaii," one of the most promising of our new industries, was another output of the station. It was ascertained in the chemical department "that many of our fodders are deficient in lime," and a press bulletin on that subject was issued. Mr. Smith says on this subject: "Doctor Norgaard, the veterinarian

of the board of commissioners of agriculture and forestry, had at the same time arrived at the same conclusions regarding the deficiency of lime from a study of cattle fed on such forage. The work will be continued in conjunction with Doctor Norgaard, who has already rendered valuable assistance in furnishing samples for analysis."

The bureau of agriculture has established a library at its headquarters, on the grounds of the government nursery in Honolulu, which at the end of 1905 contained somewhat over 4,000 books and pamphlets, not including the current publications regularly received. It is maintained as a free reference library, open to the public daily.

All that is lacking now in the Territorial equipment for promoting Agriculture is an agricultural college upon a site extensive enough and with the requisite natural advantages for the widest range of cultivation of products adapted to the islands.

DESCRIPTIONS OF THE COUNTIES.

COUNTY OF HAWAII.

Tho the island of Hawaii has an area exceeding that of all the other islands combined, yet it was deemed inexpedient, in establishing county government, to make more than one county of it. The reasons for this will suggest themselves on examining the accompanying map and a perusal of the island's physical description herein sketched. Hawaii has an area of 2,570,000 acres, or 4,210 square miles. Its population of 46,843, by the 1900 census, is estimated to have grown to 60,000 and odd.

The longest axis of the island of Hawaii is north and south, a distance of 90 miles, and its greatest width is 74 miles. On this island are two mountains of over 13,600 feet in elevation, named Mauna Loa and Mauna Kea, which are often capped with snow, but their slopes fall so gently that when seen from a distance they give the impression of a table-land. This fact, together with its location, identifies Hawaii as the island found on the early Spanish maps, published long before the discovery by Cook, and named by the Spaniards "La Mesa." In addition to these two mountains there is a third, Mount Hualalai, the three forming almost an equilateral triangle 15 miles in each direction, on the southwestern side of which, as the map shows, are the high lands of Kona. Into this triangle in ages past the volcanoes had poured their streams of molten rock, which found an outlet thru the northern and eastern sides of the triangle, in some instances the flows being miles in width and extending into the sea. The great flows of 1843, 1855, and 1859 ran mile after mile and spread out an immense volume of rocky slag, and around this central tract, because of these lava deposits, are large areas of waste land, on which neither animal life nor vegetation subsists. From an elevation of 8,000 feet upward the summit slopes of these mountains are barren. Below that level the slopes on the northwesterly exposure are covered with dense forests. There is an area between the forests and the upper barren tops used for cattle and sheep ranches, and in one instance it was necessary to erect 11 miles of stone fencing to keep the sheep from becoming lost and starving on the lava flows. This large barren region is practically uninhabited, the ancient population of the island, as well as the modern,

confining itself to the more salubrious and productive seashores. Yet across these hot, dry central wastes between the mountains the King's messengers past swiftly with dispatches by paths now almost obliterated.

On the eastern slopes of Mauna Loa, the mountain forming the southernmost point of the triangle, is the great volcano of Kilauea, now apparently growing extinct. Its history shows a gradual diminution of activity, until to-day there is practically no molten lava to be found, only heat and steam rising from the pit left when the fire in this crater disappeared. Two years ago the latest violent manifestations occurred, but the eruption was comparatively mild and lasted but a few months. The main crater is about eight miles in circumference and gives the impression of a sunken plain, the floor of which is of black lava with here and there a cone standing out. The walls on three sides rise perpendicularly for 400 or 500 feet. Ten or twelve years ago the molten lava rose in the central pit five or six hundred feet in depth below the floor, until it formed a lake half a mile wide which overflowed upon the floor of the crater. On the summit of Mauna Loa is the sometimes active crater of Mokuaweoweo, which as recently as 1896 gave a magnificent display of the powerful volcanic forces that have heretofore existed in these islands. There was a great lava flow again in 1899, the eruptive point being a few thousand feet below the summit. Within a hundred years this mountain has sent forth from its flanks enormous lava flows, which have broken out at various elevations and quietly flowed as long as the material lasted, having in some instances reached the sea.

In the northern extremity of the island, distinct from the others, as the map will show, are the Kohala Mountains with an elevation of but 5,500 feet. Yet from their proximity to the sea and their rising a considerable height above the surrounding plains, they conform more nearly than the vast mounds already described to the ordinary conception of mountains. Between them and the sea lie the tremendous canyons and gulches of Waipio and Waimanu, with their perpendicular cliffs 3,000 feet high covered with tropical verdure, forming some of the grandest scenery of the group. From these vast gulches the coast runs in a southeasterly direction to the town of Hilo, a distance of some thirty miles. This stretch of coast forms a series of cliffs of varying height, upon whose bases the ocean furiously breaks, and above which are sloping plains richly watered and covered with sugar cane, extending back for varied distances to an approximate elevation of 1,500 feet, where the forests begin. Along this coast there is not a vestige of a harbor.

The whole eastern coast of the island, running almost north and south, is a dry and rainless section with a clear and bracing atmosphere. On the southern coast a large indentation looks across the broad plains of Waimea, used as a cattle range, to Mauna Kea. Toward the summit and on the slopes of this mountain wild cattle are found, the offspring of those brought by Vancouver at the close of the eighteenth century, which, at Vancouver's suggestion, were protected by official edict for many years. Finding there a natural habitat, the stock has maintained itself to the present day. In the same region also are to be found wild horses, the progeny of those introduced by Captain Cleveland from California in 1803, but with modern methods of ranching and the subdivision of these vast areas

into small inclosed paddocks, these wild animals will soon be a thing of the past.

Along the picturesque Hamakua coast line, already described and shown within the red lines on the map, from the great gulches to Hilo, is a continuous chain of sugar plantations, the sites of which are marked by the tall smokestacks of their mills. It forms a remarkable area, not only in the grandeur of its scenery, but because of its productiveness. Here artificial irrigation is not necessary, the rainfall being ample for the production of sugar. The many little streams and rivulets that start in the forests and run over the cliffs into the sea are used by the plantations for fluming the cane from the upper fields to the mills. Owing to the dangerous sea approach and absence of harbors, considerable ingenuity in shipping sugar, receiving supplies, and embarking and disembarking passengers by the coasting steamers is brought into play at the plantation landings. A wire-cable system of carrying is in common use. From an anchorage out in the deep sea a cable is stretched over a tower on top of the cliff and anchored to a huge block of cement set behind it. Under this cable the steamer is moored and by a traveling pulley with a cage, operated by a donkey engine, freight and passengers are acrially carried to and from the steamer.

Notwithstanding the usual plentitude of moisture in the Hamakua and Kohala districts--forming the region just described--there have been occasional seasons of most damaging droughts, sometimes accentuated in disaster by forest fires. To forever ward off such calamities a great irrigation project has this summer been, in main part, completed. This is the Kohala ditch, constructed under joint Federal and Territorial authority, as its base of supply and its course are largely upon the public domain. At a cost of about a million dollars this work taps the inexhaustible resources of water in the Kohala Mountains and feeds the irrigation ditches of the sugar plantations interested in the enterprise. It also makes capable of tillage in sugar cane a large area of land in Kohala which, from being outside of the rain belt, has been arid and worthless. Moreover the charter of the corporation obligates it to supply homesteaders perpetually with water at the minimum rate. It is along the coast of this island that the greatest opportunity for railroad development in the whole group exists, and, were it not for the engineering difficulties to be encountered in crossing the multitude of gulches, there would have been ere this a line of railways connecting each sugar plantation with the port of Hilo.

There are but two railroads on the island. The longer and newer one runs out of Hilo parallel with the coast to the sugar fields of Puna by one fork, and thru Olaa plantation by another, the latter ending at an elevation of 2,300 feet, more than halfway to the volcano. The other railroad crosses the north part of the island, from the sheltered roadstead at Mahukona to the sugar fields of Kohala, a distance of 10 or 12 miles. Its main purpose is the carrying of sugar for shipment at Mahukona. A third railroad is being projected, in connection with the revival of sugar planting in Kona, which will connect the north and the south districts of that name and have an ocean outlet at a convenient point.

Hawaii has many comparatively small tracts of land not suitable for large sugar plantations, but finely adapted to the cultivation of various fruits, coffee, cocoa, vanilla, etc. Kona oranges, pineapples,

and coffee were famous before the present extensive movement to establish diversified industries in the group had gained much headway. It is in Hamakua district on this island that the successful experiment in tobacco culture, under the direction of the United States experiment station, has been made and coffee of best quality is being raised there. With an increase in ocean-steamship facilities, conjoined with improved railway and highway communications inland, the island of Hawaii can not but win premiership in diversified industries such as it has heretofore maintained in sugar production.

Hilo, the county shiretown, is the second largest city in the group. It is located on a convenient and magnificent bay, which needs but a small breakwater to make a splendid harbor of it.

When it secures this improvement and protection to its commerce its importance as a port will make railway connection with all parts of the island a necessity. Hilo has water and sewer systems provided by the Territorial government, an electric light and power plant, a volunteer fire department, a public library maintained by its citizens, and a high school, besides some excellent private seminaries. For many years all the inhabited parts of the island have been connected with each other and with Hilo by an incorporated telephone system, and for sometime past the island has had wireless telegraphic communication with the other islands and Honolulu. This means also instant communication with all the world thru the Pacific cable office in Honolulu. (The former isolation of the islanders generally has indeed forever past away.)

For several years Hilo has had a direct steamer service to and from San Francisco, the steamer between arrival and departure at Hilo making a call at Honolulu for additional freight. Before this is printed a steamer from Portland, Oreg., will be added to the line with Honolulu as an intermediary port.

Below is a brief statement of the value of real and personal property within the county of Hawaii, as shown by the returns of the tax assessor as of January 1, 1906:

Real property.....	\$14, 948, 462. 00
Personal property.....	12, 036, 906. 00
Total.....	26, 985, 368. 00

The revenues and expenditures of the county of Hawaii for the first year have been as follows:

RECEIPTS.

Estimated revenue paid by treasurer to June 30, 1906.....	\$150, 190. 10
Balance in settlement for the actual revenue.....	19, 292. 36
Total paid to county of Hawaii by Territorial auditor.....	169, 482. 46
Less interest on warrants.....	313. 38
Net payment to county.....	\$169, 169. 08
Receipts by county from other sources.....	328. 00
Total receipts by Hawaii County for general revenue.....	169, 497. 08
Road tax balance, June 30, 1905.....	7, 328. 00
Road tax paid to county to June 30, 1906.....	37, 032. 00
Receipts from other sources.....	677. 04
Total road-fund receipts for county.....	44, 947. 04
Total receipts for county of Hawaii.....	214, 444. 12

EXPENDITURES.

From general fund.....	\$142, 069. 27	
From road fund.....	14, 604. 97	
Total for fiscal year.....		\$156, 674. 24
Balance cash on hand, June 30, 1906.....		57, 769. 88
Being:		
General fund.....	27, 427. 81	
Road fund.....	30, 342. 07	
		57, 769. 88

The following officials were elected to office during the first year of county government:

Board of supervisors: John T. Moir, Hilo, chairman; James F. Woods, Kohala, vice-chairman; Stephen L. Desha, Hilo; Wm. M. Kalaiwaa, Kona; Oliver T. Shipman, Kau; D. K. Makuakane, Puna; Antone Fernandez, Hamakua.

Sheriff, Wm. M. Keolanui; clerk, Samuela K. Pua; auditor, Charles K. Maguire; attorney, Charles Williamis; treasurer, Thomas K. Lalakea.

Deputy sheriffs: W. A. Fetter, Hilo; James Mattoon, North Hilo; Wm. J. Rickard, Hamakua; S. H. Haaheo, Puna; Chas. H. Pulaa, North Kohala; John K. Kekaula, Kau; Wm. M. S. Lindsay, South Kohala; D. K. Baker, South Kona; J. W. Keliikoa, North Kona.

COUNTY OF MAUI.

The county of Maui consists of the islands of Maui, Lanai, Molokai, and Kahoolawe and all other islands lying within 3 nautical miles of the shores thereof, excepting that portion of the island of Molokai known as the Leper Settlement, which is segregated as the county of Kalawao, with certain powers of self-government in the election of local officers.

In the census of 1900 the population of this subgroup—then as now forming a single judicial and electoral district—was 27,920. It now probably approaches 40,000.

ISLAND OF MAUI.

The island of Maui, the second in area in the Territory, as also in altitude, is one of a group of three islands that lie between Hawaii and Oahu. In shape it is said to resemble the head and shoulders of a woman. It is composed of two great peaks, connected by a low plain, to which water has been brought by large irrigation ditches from long distances, and this plain now furnishes some of the richest agricultural land in the group.

West Maui has every appearance of great age, the mountain having been eroded deeply into sharp ridges and deep gorges. Iao Valley, the principal gorge, has a depth of 4,000 feet, cut right out from under the summit of the mountain, narrowing down at its entrance in the form of a horseshoe, the amphitheater of which furnishes some of the grandest scenery in the islands. This valley was famous as a Hawaiian burial place. The summit of this second great peak of the island, called Puukukui, is well wooded and watered and furnishes one of the few of the larger streams or rivers of the island, which is

intercepted with falls and cascades almost to the sea. Around the base of the mountains the dry, barren plains have in some instances been brought under cultivation by irrigation.

There are no authentic records in the memory of man of any volcanic eruption on the island of Maui, altho there are many signs indicating formations which appear to be of comparatively recent origin. The east mountain of this island furnishes the largest extinct crater in the world—Haleakala—with an elevation of 2 miles and a circumference of 20. Standing on the rim and looking into the crater, the bottom is one-half mile down, and it still gives the appearance of volcanic action on a grand scale. When this crater was filled with molten lava, more than a mile and a half above the sea level, its walls gave way in almost opposite directions and a vast amount of material ran down from these openings to the sea. This, however, was so long ago that the slopes are now covered with a dense growth of tropical vegetation. The south and west slopes of Haleakala have little or no forest growth upon them, and they have been used for some time as cattle ranches. But the northerly and easterly exposed slopes are heavily wooded and cut with numerous mountain streams. These are the streams which furnish the water for the plains between the two uplands of the island. Many of the valleys and wooded slopes on the exposed sides of east Maui are adapted to rubber culture, and it has been found that a large number of small trees have sprung up from one or two trees that had been planted years ago and abandoned. A large number of trees have recently been set out, and those interested claim that the rubber industry will make that portion of Maui the richest in production of any equal area in the Territory.

ISLAND OF LANAI.

Directly south of Molokai and about equidistant from west Maui is the island of Lanai, with an area of 86,000 acres, or 139 square miles. It is almost circular in form, its highest peak, situated nearly in the center, being almost 3,400 feet high. To the south of this is a basin of rolling pasture land of considerable area. As is so often the case, the northeastern exposure is precipitous, cut with deep gorges, one of which is a sheer cliff of 2,000 feet, and at the bottom of it is the only water source on the island. The entire island is used as a sheep ranch.

The northwesterly side is swept by the trade winds which drive thru the channels between Maui and Molokai. Here, over a large area, there is a constant struggle between the forces of nature. The winter rains encourage the scattered grass seeds, then the summer sun dries up the soil, and the winds blow everything out to sea. Unless human ingenuity is thrown into the scale against the forces of nature, man's dominion will have to yield and the area on which there is not a living thing will greatly increase.

ISLAND OF MOLOKAI.

Molokai is a long, narrow island, lying between the islands of Oahu and Maui, stretching out east and west 40 miles, with a width of less than 10 miles. A little to the west of the middle is a low, rolling

plain, which reaches from sea to sea, beyond which there rises a plain or plateau whose greatest height is 380 feet, which forms a rolling pasture land, with a very light rainfall, and on which there is practically no water, altho there are evidences of a former forest growth. The eastern end is mountainous and attains an elevation of nearly 5,000 feet, the whole northern coast of which is a series of precipices, from 1,000 to 4,000 feet high, cut into by three great valleys, which continue to the very center of the island. On the southern slopes of these valleys are cattle ranches, while most of the forest summits are now fenced and protected.

On the northern exposures, at almost the center of the island, a peninsula juts out from the abutting cliffs, furnishing an area of about 6 square miles, on which is located the leper settlement, which, with physicians and others, has a population of about 1,000 souls. The legislature has made special provision for this section by creating the small area into the fifth county, continuing its control under the board of health.

ISLAND OF KAHOO LAWE.

Kahoolawe lies to the southeast of Lanai and near to East Maui. It is a long narrow island of some 69 square miles, with an altitude of 1,400 feet. From its uninviting aspect and the necessity for depending upon rain water, this island has been inhabited only by those raising sheep, for which purpose it has been used as a ranch for many years. With the assistance of the sheep, the entire island is gradually becoming a barren waste. Its location can usually be noted from passing vessels by the cloud of dust that arises from the constantly increasing area which is denuded of vegetation.

TOWNS.

Wailuku, the county capital, is a progressive town, having in recent years made great advances in urban appearances and the institutions of civilization. It is connected by railway with the adjacent town of Kahului and many cosy villages upon the plantations beyond. Kahului is making great strides, and, with its breakwater under construction by private enterprise, is almost certain to become the commercial metropolis of Maui. Lahaina, the "ancient capital," is a regular landing on the steamer route between Honolulu and Hilo. It is the seat of one term of the circuit court each year, the other quarterly terms being held at Wailuku. Close by Lahaina is Lahainaluna Seminary, both the oldest public school in the Territory and the leading one, other than the reformatory school for boys, in the line of industrial training.

The following summary shows the value of property within the county of Maui, as returned by the tax assessor on January 1, 1906:

Real property.....	\$13, 751, 567. 00
Personal property.....	7, 375, 191. 00
Total.....	21, 126, 758. 00

The following table shows the receipts and expenditures of the county of Maui for the first year of county government:

RECEIPTS.

Estimated revenue paid by treasurer to June 30, 1906.....	\$107, 208. 19	
Balance in settlement for the actual revenue.....	19, 572. 78	
		<hr/>
Total paid on account of county of Maui.....	126, 780. 97	
Less amount of interest on warrants.....	168. 03	
		<hr/>
Net payments by Territory.....		\$126, 612. 04
"Road tax" balance, June 30, 1905.....	3, 693. 00	
"Road tax" paid by Territory.....	19, 289. 00	
		<hr/>
Total "Road tax".....		22, 982. 00
Receipts from other sources.....		1, 109. 22
		<hr/>
Total receipts county of Maui.....		150, 703. 26

DISBURSEMENTS.

Total disbursements.....		97, 767. 46
		<hr/>
Cash on hand June 30, 1906.....		52, 935. 80
Being—		
General fund.....	\$45, 971. 54	
"Road tax" fund.....	6, 964. 26	
		<hr/>
		52, 935. 80

The following have been the county officials for the first year of county government:

Board of supervisors: William Henning, Lahaina, chairman; William H. Cornwell, Wailuku; Thomas H. Church, Makawao; Henry Reuter, Hana; Theo. T. Meyer, Molokai.

Sheriff, W. E. Saffery; clerk, Wm. F. Kaae; auditor, Chas. Wilcox; attorney, D. H. Case; treasurer, L. M. Baldwin.

Deputy sheriffs: Thos. Clark, Wailuku; C. R. Lindsey, Lahaina; Edgar Morton, Makawao; F. Wittrock, Hana; J. H. Mahoe, Molokai.

COUNTY OF OAHU.

With an area in round figures of 600 square miles, or 384,000 acres, the county of Oahu consists practically of the single island bearing the same name, tho its jurisdiction embraces the distant islet of Midway, now occupied as a Pacific cable relay station and a post of United States Navy marines, also all the smaller uninhabited islands of the group not specifically attached to other counties. Oahu has especial distinction from containing Honolulu, the political and commercial capital of the Territory.

Structurally the island of Oahu consists of two mountain ranges running almost parallel from southeast to northwest, bending at Kahuku Point in the extreme north and Kaena Point in the extreme west until their terminal bluffs face each other across a great plain lying between the range parallels mentioned. The Koolau Range, with a maximum elevation of 2,000 feet, is the longer one. It has a direct run of 70 miles in the course already stated, marking the extreme length of the island, the greatest width of which, at right angles to this axis, is only 30 miles. The Waianae Range, on the western side of the island, is about half the length of the Koolau Range. It has an elevation of 4,000 feet. An extensive table-land

rises gently from the sea between these ranges, with a maximum elevation of 2,000 feet. This plain is cut by many deep gulches and possesses a fertile soil, needing only water—that has lately been to a considerable extent developed by impounding—to make it yield rich returns. A narrow and fertile plain also extends along the base of the Koolau Range on the windward side, which has been under cultivation to considerable extent for many years by sugar and rice planters and taro growers.

On the southern slopes of the central plain are found the locks of the so-called Pearl River. These consist of a fan-shaped series of inlets from the sea, divided by peninsulas and islands. They have but a single entrance and are remarkable for their depth. It is here that the United States Government has set aside the necessary area for a naval station.

Facilities for obtaining a comprehensive view of the physical features of Oahu, together with enjoyment of its climatic charms, varying with elevation and prevailing wind exposures, are ample for the whole island, excepting one small eastern section, by both railway and the public highway system. A narrow-gage railway starting from Honolulu winds along the seacoast, passing inland to clear Pearl Harbor locks, and from opposite Barbers Point in the south runs between the base of the Waianae Range and the ocean to the most easterly point of the island, thence east and northeast to the most northerly point, a total distance of 70 miles. A trip by automobile from Honolulu across the plains between the two ranges, around the northern point of the island along the eastern shore, with the high cliffs of the Koolau Range close at hand, including a climb of 1,200 feet over them thru the Pali, can easily be made in a day. Such a trip affords the best idea of the varying conditions of the climate and rainfall that are to be found in these islands, besides presenting a constantly changing panorama of views that can hardly be equaled elsewhere, in which the sparkling ocean with its brilliant colors upon the reef, the verdure-covered mountains, and rapidly changing cloud effects all combine to make a scene of surpassing beauty.

The Oahu Railway and Land Company's road, whose first section was opened seventeen years ago, has been a financial success since its inception. It carries freight to and from six sugar plantations, viz, Honolulu, Oahu, Ewa, Waianae, Waialua, and Kahuku, named in the order of location from the Honolulu terminus. Waianae plantation was the first in the islands to develop electric power from water. Power is taken from the water at the head of the valley and the water is then used for irrigating the upper lands. The pumps and wells located at the mouth of the valley are operated by electricity and furnish the water for the lower fields near the sea.

The Waialua Agricultural Company has expended over \$4,500,000 in developing the low lands at that end of the island. Its sugar-cane fields extend for 15 miles along the east coast and inland up to varying elevations. It has lately constructed the largest impounding dam in the Territory, whereby the pumping of water to the higher levels of the plantation will be unnecessary. A few miles beyond Kahuku is a small sugar plantation operated by a Mormon colony which for some years has had its cane ground at Kahuku mill. The only other sugar estate in this county is that of Waimanalo, upon the

plains at the base of the high cliffs on the windward side at the eastern end of the island. Its output is carried by a small steamer to Honolulu for shipment to market.

Recently a branch of the Oahu Railway, 9 miles in length, has been extended up the bed of a gulch, over the plains, to Wahiawa for the benefit of the pineapple industry. The largest single area devoted to this fruit in the Territory is found at that place. A colony of California farmers some years ago took up lands there under the homestead law for the purposes of general horticulture. Finding the greatest advantage in pineapple raising these people made that practically their exclusive industry. Organizing as companies under the general incorporation act they established factories for preserving the fruit, one of which has been removed to spacious premises at the Honolulu Railway terminus, where a factory has also been erected for making the cans. The fruit is packed in both tin and glass, in styles varied to suit the demands of the trade. It is estimated that there are 3,000,000 pineapple plants growing upon 1,300 acres at this place. Some older pineapple plantations on this island are also doing well. Honolulu, the Territorial capital, has a population of about 30,000. Its streets are lighted with electricity from a government plant connected with the water supply. A private company has a first-class electric power and light plant with a large number of patrons. The telephone has been very generally used in Honolulu, with rural connections, ever since it came into practical working. For five years or so a chartered company has furnished an excellent electric street-railway service, superseding a fairly efficient horse traction system that had existed for twelve years. The city has several modern hotels, and many presentable business blocks and up-to-date stores.

As for the city plot, it is virtually one great park. It extends from the business section, upon the harbor, out over a plain thru Waikiki to Diamond Head, and back from the sea frontage into various beautiful valleys and up to the breezy foothills. Electric rapid transit has made available many wholesome suburban tracts that are steadily building up with comfortable homes for both the wealthy and those of moderate means. And wherever homes exist they are surrounded by luxuriant vegetation of trees and shrubs, vines and flowers. The general effect is a charming combination of forest and town. For producing such conditions the great promoting cause has been the city's water supply, derived partly from artesian wells by pumping. The water system is still a Territorial institution, having been far advanced toward perfection before the formation of counties. Its latest improvements, including a large high level reservoir now under construction, are from the proceeds of Territorial bonds, for which the Territory is responsible.

Honolulu Harbor is an opening in the coral reef at the mouth of Nuuanu Valley. The fact that it was possible in the early days to make cattle wade out up to their middle on the reef where, secured by a line from the vessels, they could be towed thru the opening made Honolulu more accessible to the commerce of the world than any other port of the islands. For this reason Honolulu became the capital and commercial metropolis of the group. The harbor has since been widened and deepened at a considerable expenditure of capital. At the time of annexation it had been dredged to a depth of

28 feet. Under the Federal Government a large portion of it has been dredged to a depth of 30 feet. Thus it is just barely able now to accommodate the larger vessels which the increasing commerce of the Pacific has brought into being.

The city has a most efficient fire department, also a sewerage system in good working order. Its streets are well macadamized and cleanly, and the community, like so many others, is passing thru a civic awakening and beginning to take an interest and pride in cleanly and esthetic appearances.

The wealth of the county of Oahu is best illustrated by the tax assessor's returns of property within the county on January 1, 1906, as follows:

Real property.....	\$31,640,862
Personal property.....	36,792,873
Total.....	68,433,735

The revenue of the county consists of the entire road tax (which forms a special fund and is required to be expended in the taxation district where it is collected) and one-half of the 1 per cent heretofore collected on real and personal property. Briefly, the first year's experience resulted as follows:

RECEIPTS.

Estimated revenue paid by the treasurer to June 30, 1906....	\$530,970.47
Balance in settlement for the actual revenue.....	47,720.76
Total paid to the county of Oahu by Territorial auditor.....	578,691.23
Less interest on warrants.....	1,212.52
Net general revenue paid Oahu County.....	\$577,478.71
Road tax balance in treasury July 1, 1905, and paid to county treasurer.....	3,382.00
Road tax paid to treasurer Oahu County for fiscal year ended June 30, 1906.....	58,908.00
Total "road tax".....	62,290.00
Receipts of county from other sources.....	11,802.03
Total receipts of county.....	651,570.74

EXPENDITURES.

From general revenues.....	\$538,570.93
From road tax.....	52,868.10
Total expenditures.....	\$591,439.03
Cash on hand June 30, 1906.....	60,131.71
Being:	
General fund.....	50,709.81
Road-tax fund.....	9,421.90
	60,131.71

The first county officials of the county of Oahu are as follows:

Board of supervisors: George W. Smith, chairman, Honolulu; John Lucas, vice-chairman, Honolulu; Frank K. Archer, Ewa and Waianae; Andrew E. Cox, Waialua; Samuel C. Dwight, at large; H. T. Moore, Honolulu; J. K. Paele, Koolaupoko and Koolauloa.

Sheriff, Arthur M. Brown; clerk, D. Kalauokalani, jr.; auditor, James Bicknell; attorney, E. A. Douthitt; treasurer, Richard H. Trent.

Deputy sheriffs: J. S. Kalakiela, Honolulu; John Fernandez, Ewa; Chris J. Holt, Waiamae; Oscar P. Cox, Waialua; L. K. Naone, Koolauloa; Frank Pahia, Koolaupoko.

COUNTY OF KAUAI.

The islands of Kauai and Niihau, which compose the county of Kauai, are situated about 90 miles to the northwest of Honolulu, and contain an area of 644 square miles, or 410,000 acres, and a population of 27,672 persons.

The island of Niihau is much the smaller of the two, having an area of only 97 square miles and a population of 175. It is used exclusively as a sheep ranch.

The island of Kauai is circular in shape, being 25 miles in length by 22 miles in width, and on account of its abundant rainfall and luxuriant vegetation is known as the "Garden Isle."

The center of Kauai is mountainous, culminating in the peak of Waialeale, which rises 5,250 feet above the level of the sea. From the mountains on all sides the land rolls gently down to the sea, the grassy uplands furnishing fine pasturage, while the fertile lower lands and rich valleys produce abundant crops of rice and sugar. The Kauai Mountains are covered with forests and fifteen fine rivers are quite evenly distributed around the island, which furnish unlimited water for irrigation purposes. Kauai temperature is a few degrees lower than that of the other islands in the group, and this, with its perfect climate and matchless scenery, makes Kauai the favorite island.

The sugar industry of the island is first in importance and furnishes employment to about 7,000 people, of whom not more than 500 are American citizens, these being principally naturalized Portuguese. Very few Hawaiians are employed upon the plantations. There are eight large sugar estates (corporations) on the island which produce annually about 75,000 tons of sugar. All these plantations raise their cane by irrigation and bring the water for this purpose down from the mountains by an extensive system of aqueducts and ditches, store it in enormous reservoirs, and draw the water from these as it is needed for irrigation.

The Kauai rivers are of such nature that enormous water power could be obtained from them, to be used in connection with the plantation works, and already the Kauai Electric Company has utilized the waters of the Wainiha River for this purpose and has in operation an electric plant of 3,600 horsepower, the electricity from which is used by the McBryde Sugar Company upon its plantation.

One important fact in connection with the plantations worthy of mention, on account of the effect it will have on Kauai's future, is that these various plantations at the present time have under lease 138,000 acres of government land, which constitute the most valuable part of Kauai's domain, on account of the water rights which in most instances attach to these lands. The leases on these lands are beginning to expire, and the policy of the present government, to parcel out the public domain among citizen homesteaders, will make Kauai a prosperous community of independent citizens, owning their own homes, thus establishing a vantage point from which the county can be developed along traditional American lines.

At present Kauai is the land of the homeless employee, who holds the roof over his head by sufferance of his employer, and whose only refuge in case of discharge is the steamer that bears him to Honolulu. Of the entire population of the county of Kauai, excluding Hawaiians, a few of whom have been wise enough to hold onto their inherited kuleanas, not 50 people own their own homes.

The rice industry, next in importance to the sugar industry, and which utilizes the rich river bottoms, is carried on exclusively by Chinese and Japanese. A very high grade of rice is produced, and Kauai leads the islands of the group in this industry.

Kauai has a few other small industries struggling for life, which in time, when strengthened by the opening of the government lands to homesteaders, will be of vast importance to the island, such as the sisal industry, the raising of pineapples, coffee, rubber trees, fruit culture, the production of honey, cattle raising, and dairying, etc.

The government of Kauai is partly local and partly Territorial. The schools, which are of a high order of efficiency, are under Territorial control, and about 2,000 children attend the 31 schools on the island. The entire revenue system is also under the Territory, the county dividing the taxes collected on its \$15,000,000 of property with the Territory.

In speaking of the success of county government, it is necessary to consider the influence of local pride on the result. The people had, long before county government was finally secured, grown tired of Honolulu control, and strongly desired to elect their own officials, with the power to hold them directly responsible to the community for their official conduct. The entire citizen populace take the keenest interest in the management of county affairs and the success of the county government. The Republican party was successful in electing all of the first county officials but two of the supervisors, who, because of their minority, have had no influence.

The first year of county government has run as smoothly and efficiently as it could in the oldest and most experienced community on the mainland. The board of supervisors at once began the macadamizing of all of the more traveled roads of the county, and considerable progress has been made in the work. Especial attention has been given to preserving the steel bridges heretofore built by the Territory, and many local improvements of a small nature have also been accomplished.

The county officials concerned succeeded in permanently closing up the many long-established gambling houses which had been operated theretofore, within four months from the time they took office, and the professional gamblers, who regularly fleeced the plantation laborers, have been driven from the island.

Without going into detail, results show marked improvement in the work of every department taken over by the county, with a corresponding satisfaction on the part of the public. The expenditures have been kept strictly within the county income, and a spirit of economy and carefulness has characterized all county transactions.

The public seem to be satisfied in the main with the measure of local government which they now enjoy. They concede that the handling of the liquor traffic, the school system, and the tax department is better at present where it is, in the hands of the Territory, while, on the other hand, it is desired that all mercantile licenses be

under the county, that district magistrates be appointed by the board of supervisors, and that all misdemeanor fines collected in the courts go to the county as an incentive to the police officials.

The voting population of the county, comprising a registration of 1,036 voters, is composed of approximately five-eighths Hawaiians, the remainder being principally, in order of numbers, naturalized Portuguese, Germans, Norwegians, and English, with about one-sixteenth native Americans. The county seat is Lihue. In politics Kauai is safely Republican.

According to the returns of the tax assessor on January 1, 1906, the wealth of the county of Kauai was as follows:

Real property	\$6, 567, 446
Personal property	8, 061, 708
Total	14, 629, 154

During the year the county received from the Territory as the county's share of the taxes \$110,325.99, and expended in all only \$76,164.90, leaving a balance on hand of \$34,161.07, as will more fully appear from the following statement:

RECEIPTS.

Estimated revenue paid by the treasurer to June 30, 1906.	\$77, 292. 88
Balance in settlement for the actual revenue.	11, 473. 05
Total paid to the county of Kauai by Territorial auditor.	88, 765. 93
Amount of interest on warrants included in above amount.	104. 94
Net cash to county treasurer, "general revenue"	\$88, 660. 99
Balance of "road tax" on hand July 1, 1905, and paid to county treasurer	462. 00
Total "road tax" paid during fiscal year ended June 30, 1906.	21, 203. 00
Total "road tax"	21, 665. 00
Total payments to county of Kauai.	110, 325. 99

EXPENDITURES.

Expenditures from "general revenue"	\$69, 777. 15
Expenditures from "road tax"	6, 387. 75
Total expenditures by county of Kauai for fiscal year ended June 30, 1906.	76, 164. 90
Balance cash on hand June 30, 1906.	34, 161. 09
Being:	
General cash	\$18, 883. 84
Road fund	15, 277. 25
	34, 161. 09

The first county officials elected and serving are:

Board of supervisors: H. D. Wishard, Lihue, chairman; W. D. McBryde, Koloa; R. Puuikē, Kawaihau; D. Kanealii, Hanalei; T. Brandt, Waimea.

Sheriff, W. H. Rice; clerk, J. M. Kaneakua; auditor, O. Omsted; attorney, J. D. Willard; treasurer, A. H. Rice.

Deputy sheriffs: W. O. Crowell, Waimea; Henry Blake, Koloa; S. K. Kao, Lihue; S. W. Maheula, Kawaihau; J. K. Lota, Hanalei.

REPORTS AND DESCRIPTIONS OF THE VARIOUS DEPARTMENTS.

DEPARTMENT OF PUBLIC INSTRUCTION.

[By W. H. BABBITT.]

In reviewing the educational work for the last year it is a pleasure to report considerable progress in spite of severe handicaps. The lack of suitable accommodations for children applying for admission and the insufficiency of funds appropriated for carrying on the work has operated against the greatest success and has made the administration of the schools a more trying task for both the department and the teachers than should be the case. The loyalty of all those in the employ of the department and the enthusiasm created by hope of better things have, however, more than offset the drawbacks, and the schools to-day are in a better condition than before. Increased activity on the part of the normal inspectors has met with an increased activity on the part of principals and teachers, and the greater promptness with which term outlines, daily programs, etc., are prepared and regular reports sent to the department indicates a greater desire on their part to follow out the letter as well as the spirit of the rules and regulations.

Work along the usual lines has progressed with the same vigor as before, and extra effort has been made in special lines. The care of school buildings and the beautifying of school grounds have received additional attention. A prize offered to that grade in each school which should plant and raise the best tree for the year has stimulated the planting of hundreds of trees and shrubs on the grounds of nearly every public school in the Territory, and the results are already apparent, not only in the increased attractiveness of the schools, but also in the influence on the pupils themselves.

Manual training is being extended as much as possible, and the time is not far distant when each school properly equipped with tools should be in a position to do a large part of the repairing necessary from time to time. This will give the pupils a valuable training and save a very considerable outlay for the department.

Proceeds of sales from agricultural work and from articles made by the sewing classes has enabled many schools to add to libraries and to obtain articles not furnished by the department as well as to give some remuneration to the pupils themselves.

The need of an agricultural and industrial college is becoming more and more apparent. The fact that the vast majority of our students do not attend school beyond the required school age points to the necessity of fitting them as far as possible not alone for citizenship but for ability to properly maintain themselves in the struggle for existence.

•

ATTENDANCE.

The attendance in the schools, both public and private, is constantly increasing. The following table shows the enrollment by years since 1898:

	All schools.	Public schools.		All schools.	Public schools.
June—			June—		
1898.....	14,997	10,965	1903.....	18,415	13,793
1899.....	15,490	11,436	1904.....	19,299	14,467
1900.....	15,537	11,501	1905.....	20,406	15,202
1901.....	16,390	12,354	1906.....	21,358	16,119
1902.....	17,518	12,958			

But the increase in attendance has not been attended by a corresponding increase in the appropriations for the maintenance of schools, and the heaviest burden has been borne by the children, in lack of suitable accommodations, and the teachers, who are now being paid inadequate salaries.

Amounts expended by department of public instruction from January 1, 1898, to June 30, 1906.

Year ended December 31—		Year ended June 30—	
1898.....	\$244,533.60	1902.....	\$391,785.29
1899.....	324,654.93	1903.....	388,623.63
1900.....	321,395.50	1904.....	409,048.84
Six months ended June 30—		1905.....	336,358.59
1901.....	187,268.25	1906.....	361,458.99

From this list it will be seen that the amount spent during the past year is some \$48,000 less than the amount spent two years previous, and it is less than the amount spent in the years 1902 and 1903, while the attendance was larger than at any previous time. The cost of instruction per capita has also been reduced, but at the expense of those who should not be called upon to pay it, namely, the children and teachers. Since 1899 this has been as follows:

Cost of instruction per capita.

1899.....	\$33.18	1903.....	\$28.28
1900.....	31.24	1904.....	28.27
1901.....	27.45	1905.....	22.12
1902.....	30.11	1906.....	22.42

The assertion that the teachers are called upon to pay more than their share is evidenced by the fact that in February of this year there were 44 teachers receiving less than \$30 per month, 56 less than \$40 per month, 171 less than \$50 per month, 50 less than \$60 per month, 38 less than \$70 per month, 15 less than \$80 per month, 32 less than \$90 per month; 385 out of 435 teachers were receiving less than \$70 per month; over 62 per cent were receiving less than \$50 per month, over 22 per cent less than \$40 per month, and over 10 per cent less than \$30 per month.

It is not remarkable that under conditions, as indicated above, the department is unable to command the best teachers: all its schools.

During the past year the following teachers have been employed in all schools of the Territory:

	Public.	Private.	Total.
Hawaiian.....	71	16	87
Part Hawaiian.....	104	17	121
American.....	173	155	328
British.....	39	20	59
German.....	8	7	15
Portuguese.....	19	9	28
Scandinavian.....	11	2	13
Japanese.....		9	9
Chinese.....	5	9	14
Other foreigners.....	5	17	22
Total.....	435	261	696

This shows an increase in the teaching force over the preceding year of but 9, whereas the attendance increased 952. The overcrowding in many of our schoolrooms, in some cases teachers having over 60 children, attests the truth of the statement that larger accommodations and more teachers are needed.

The number and description of the schools may be found in the description under the various counties.

The following tables show the nationalities in all the schools, ages of public school pupils by islands, ages of private school pupils, enrollment of public school pupils by grades, for the year ended June, 1906:

Nationality of pupils.

	Public.	Private.	Total.
Hawaiian.....	4,045	800	4,845
Part Hawaiian.....	2,382	1,040	3,422
American.....	457	502	959
British.....	142	81	223
Portuguese.....	3,239	1,233	4,472
Scandinavian.....	63	38	101
German.....	144	119	263
Japanese.....	3,578	719	4,297
Chinese.....	1,480	603	2,083
Porto Rican.....	338		338
Other foreigners.....	242	104	346
Total.....	16,119	5,239	21,358

Ages of public-school pupils, by islands.

Island.	Under 6 years.		6 to 8 years.		9 to 15 years.		Above 15 years.		Total.		Total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
Hawaii.....	44	39	1,083	841	1,658	1,330	64	42	2,849	2,252	5,101
Mau and Lanai.....	32	23	539	442	761	687	107	22	1,439	1,174	2,613
Molokai.....	5	5	33	27	108	57	3	6	149	95	244
Oahu.....	39	25	1,014	882	2,043	1,692	133	208	3,229	2,807	6,036
Kauai and Niihau.....	20	11	411	384	722	565	7	5	1,160	965	2,125
Total.....	140	103	3,080	2,576	5,292	4,331	314	283	8,826	7,293	16,119

Ages of pupils in private schools.

	Under 6 years.	6 to 15 years.	Above 15 years.	Total.
Boys.....	495	1,694	633	2,822
Girls.....	492	1,607	318	2,417
Total.....	987	3,301	951	5,239

Enrollment by grades.

Receiving.....	4,781	Grade VI.....	370
Grade I.....	3,494	Grade VII.....	257
Grade II.....	2,745	Grade VIII.....	113
Grade III.....	2,148	Normal School.....	143
Grade IV.....	1,255		
Grade V.....	716	Total.....	16,119

One of Hawaii's educational problems is that presented by the large number of nationalities represented in its school enrollment. The appended table of percentage shows the relative attendance of nationalities by birth, tho doubtless a large proportion are entitled to American citizenship.

It is a significant fact that the decrease in the attendance in the public schools for the year ended June, 1906, shows over 58 per cent of pure Hawaiian blood and over 40 per cent of American blood, while the increase shows that over 58 per cent were of Japanese blood.

Percentage attendance, 1906.

	Public.	Private.	All schools.	Public schools.				
				Nation- alities.	Increase 1905-6.	Increase.	Decrease 1905-6.	De- crease.
	<i>Per ct.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>			
Hawaiian.....	18.94	3.75	22.69	25.09			103	58.86
Part Hawaiian.....	11.15	4.87	16.02	14.78	51	4.67		
American.....	2.14	2.35	4.49	2.84			71	40.57
British.....	.66	.38	1.04	.88	10	.91		
Portuguese.....	15.17	5.77	20.94	20.09	214	19.60		
Scandinavian.....	.29	.18	.47	.39			1	.55
German.....	.67	.56	1.23	.89	11	1.01		
Japanese.....	16.75	3.37	20.12	22.20	640	58.61		
Chinese.....	6.97	2.83	9.80	9.24	136	12.45		
Porto Ricans.....	1.58		1.58	2.10				
Other foreigners.....	1.13	.49	1.62	1.50	30	2.75		
Total.....			100	100	1,092	100	175	100

SURVEY DEPARTMENT.

[By WALTER E. WALL.]

In 1871 the humble beginning of the government survey was made, the force, including the head of the survey, consisting of two men, two boys, and a few native laborers. The conditions under which this force began its work were as follows:

A great division of lands had been made and a new tenure established in 1848. The lands of the islands were apportioned approximately as follows:

	Acres.
To the government.....	1,495,000
To the crown.....	984,000
To the chiefs.....	1,619,000
To the native tenants.....	28,000
Total.....	4,126,000

Soon the government proceeded to sell much of its land at private sale and at low prices, the same being selected and surveyed at the option of the purchaser, who of course knew enough to select the "cream."

Surveyors were imperatively needed to survey the lands awarded to the native tenants, as well as the tracts sold by the government, and to meet this demand numerous surveyors came forward. Some of these were competent and conscientious, but many were happy-go-lucky and careless to the first requirements of a survey, and not infrequently their grotesque errors and impossible descriptions amounted almost to a display of genius.

It may serve to illustrate some of the old methods of surveying to cite the case of one who had been an old surveyor of public lands in the United States and who, when confronted with the dense jungles of Hawaii, was accustomed to send an assistant far ahead, out of sight and nearly out of hearing, and then sight his instrument as best he might at the assistant's "yell," borne faintly on the breeze, after which two chainmen, by any route that they found the easiest, would measure a distance that was recorded with microscopic precision.

At the inception of the government survey in 1871, about 15,000 separate lots and tracts of land had been surveyed, mostly by loose and imperfect methods.

The crown lands, the chiefs' land, and the remaining government land were almost wholly unsurveyed or, if surveyed in any measure, generally in the crudest and most inexact manner. There were no reference points by which these surveys could be connected, and practically no maps to show the relation of the various old surveys to each other. Add to this that while the "Great division" of 1848 had radically changed the basis of ownership, it did not and could not change the old natural boundaries, and that the lands—government, crown, and private—were commingled in every conceivable size, shape, and location; that the country had a picturesque topography of rugged mountains, deep valleys, swamp lands, and arid lava flows, thick jungle, and open plain; that the elevation varied from sea level to 14,000 feet then a general tho incomplete idea of the situation may be had.

To bring order out of this chaos, to locate the old and often "crazy" detached surveys, showing the same on general maps, and thereby determining the remainder of the government land, that it might be intelligently dealt with, was the primary object of the survey. Its scope, however, was continually widened in response to the needs of the public, and has included the making of all maps, exact measurements, and records needed for public purposes.

It has included tide observations; time observations for local standard and Greenwich mean time; meteorological, magnetic, topographic, and hydrographic work; street lines and grades for the cities of Honolulu and Hilo; the laying out of lands for settlement, and the cooperation with the court of land registration in the examination of surveys for registration under the "Torrens" system. In other words, this office has been called upon to perform many of those duties which elsewhere fall to the lot of separate bureaus or organizations.

As to the situation to-day, it may be said that the islands have been connected and covered by a triangulation scheme, in accordance with the principles and methods of the United States Coast and

Geodetic Survey; that coast lines have been surveyed and satisfactory maps made of all the islands, excepting only the few islets of little or no importance; that good district maps of all the islands have been prepared, showing the public and private ownership; that the records of the office, growing constantly more complete, have become of inestimable value, and are resorted to by all classes of the community as their first and most necessary reference in all land matters; that all transactions as to public lands may be made with a knowledge of true conditions, to the general benefit of the whole community.

Such, in brief, has been the result of the work of the survey office, and while no work of this nature can hope to be above criticism, it is a satisfaction to know that the warmest commendation of the work has been from visitors of high scientific attainments and from those of this Territory whose knowledge of the work makes their criticism valuable.

At the present time the most important work of this office is the laying out of lands for settlement under the existing land laws, and the locating, marking, mapping, and describing of the boundaries of the public lands and forest reservations.

While the general policy as to the disposition of public lands is directly in the province of the commissioner of public lands, the connection of the survey department with the details of the work, and its knowledge of the situation, is such that it seems proper to make here some comment on the matter, more particularly as to the application of the United States land laws and surveying methods to the public lands of Hawaii, an application that is not infrequently recommended by persons who have limited knowledge of the situation.

The area of the public land in Hawaii is about 1,700,000 acres. Of this only a limited portion will come under any form of cultivation, and a large portion of this depends on the construction of expensive roads and the success of new agricultural enterprises yet to be proved. This area is too small to warrant the liberal allotments made under the United States general land laws, and in view of the productiveness of Hawaiian lands of good quality such allotments are in general unnecessary.

Much of the "cream" and most of the accessible portions of the public lands were disposed of many years ago. There is still considerable public land of value, but a larger part is almost worthless—such as the great lava-flow regions and the many precipitous, rugged mountain tracts, making occupation impracticable.

In the rainy districts, expensive macadamized roads must be built for any proper development of the lands, and in many sections graded roads at heavy expense are indispensable to reach the elevations at which very much of the remaining public lands lie. Owing to the commingling of public and private lands such roads must in most cases cut thru and across private lands, thereby greatly complicating the situation.

The expense attending the building of these roads, without which the settler is at the greatest disadvantage, and the limited area suited to settlement, require a careful limit of the area allotted in order to meet the needs of as many as possible.

The United States system of division into rectangular blocks could be applied to any useful purpose in only a few places, and unfortunately those places are for the most part the inhospitable,

barren localities unfit for settlement. Where the rectangular system can be applied, however, the survey department is only too glad to adopt it.

Many valuable pieces of public land are remnants of such size, shape, and location that it would be simply impossible to apply the United States survey system. Any consideration of Hawaiian land maps will show this. For instance, a tract of 2,000 acres has nine-tenths of its value represented by less than 100 acres at a low elevation, even this 100 acres lying in scattered remnants. It would be impossible to apply the United States rectangular system to those remnants below. As to the region above, even casual observation will show that, if divided at all, it must be in some conformity with the topography, if the absurdity would be avoided of having one lot on the top of an almost inaccessible peak, while another lot would capture the greater part or all of the land of real value. Cases of equal difficulty would be the rule rather than the exception.

Owing to the great differences in elevation the marked disparity of rainfall, the differences in nature of the lava flows, which have in the remote past covered areas, and in all manner of inequalities, it is impossible to assign uniform values to land. Within the area of a small lot may be found land varying from almost nominal value to several hundred dollars per acre.

The native Hawaiian rarely cultivates over half an acre of land; this and a small area for pasturage meets his apparent needs. Many Portuguese, now American citizens, who make good settlers, are well satisfied with from 25 to 30 acres. Where the nature of the country requires or the amount of land permits, lots up to 100 acres may be acquired.

To meet the requirements of the various classes and needs of the community, a variety of methods is needed by which the lands may be divided up and disposed of according to the nature and location of the land, the demand for it, and the quantity available to meet the demand. The present land laws were intended to meet existing conditions, and as far as possible prevent land grabbing and speculation and have well served their purpose.

The speculative tendency in taking up land should not be encouraged. Where the opening of land can go on in a reasonable way, favorable locations being selected as to productiveness, accessibility, etc., there is a good chance of the land being utilized and the results that were hoped for being achieved.

To push lands on the market in large allotments that will not, and indeed can not, at present be used, means that they would fall into the hands of already large holders to whom they would be of some use in connection with present holdings. Dummies can too often be found to take up land in every country, or at least perfunctory compliance may be made with conditions until title is obtained, and then for the best bidder who is generally the already large land holder.

A large part of the public land suitable for cultivation lies within the forest belt at an elevation of from 1,500 to 4,000 feet. While many diverse views are held as to the wisdom of conserving this forest, it is a question of importance to the Territory and an added reason why the matter of the disposition of the public lands should be cautiously dealt with.

Under the conditions as to the public lands and land laws, it is evident that the survey department has no light task in the laying out of lands for settlement. To perform the work with accuracy; to furnish to the commissioner of public lands the varied information required by him; to consider carefully the nature and value of the land, and to divide the same with reference to such nature and value, and with the further consideration of means of access to all lots laid out, is the task before this office. The endeavor is and has been to spare no pains to do this work to the best interest of the community.

During the year ended June 30, 1906, a number of tracts on the islands of Hawaii, Maui, Oahu, and Kauai, containing over 3,500 acres, were subdivided into homestead lots for disposal under the land laws.

Detail surveys were made of twelve additional tracts, containing an area of 9,890 acres, and a number of forest reserves were located and described, having a net area of 78,400 acres of public land. The nature of these tracts varies from valuable city lots and first-class agricultural lands to grazing fields of poor quality. Much of the land is of a rugged character and the isolated locations required extensive road surveys to make good connections with the nearest main public thoroughfares.

While doing the general field work, thirty-six school lots located at various points thruout the Territory were surveyed, and much miscellaneous office work has necessarily followed.

The recent passage of laws for the registration of land titles under the "Torrens" system has added in a considerable measure to the work of this office. All surveys and plans presented for registration are examined and checked and the necessary five blueprint copies to each prepared here. All possible aid is given to the officers of the court of land registration from the maps and records of this office or by any explanations or information which it is in the power of the office to give. The increasing number of petitions for registration is a gratifying indication of the growing popularity of a system that means much for the clearing up and simplification of titles in this Territory.

As to the survey needs of the Territory, which this office has not the force to meet, a geological survey which would include a study of the water resources of the country appears most important. The richest soils of the country are in general the driest ones, and while private enterprise has done and is doing much to develop water resources, and has reduced to cultivation much of this dry land, a more comprehensive study of the matter is needed. Waters are still running to waste that are needed for power and irrigation. Tunneling has developed considerable water and might develop much more with the help of better geological information. The conservation of storm waters is still in its infancy. While the survey department is not equipped for the study of this matter, it is in a position to cooperate and assist any survey, Federal, or Territorial, that might be intrusted with this important work.

PUBLIC LANDS AND THEIR ADMINISTRATION.

[By JAMES W. PRATT.]

In order to avoid repetition, and at the same time assist any who may desire to secure lands in the Territory of Hawaii, I can not do better than to refer inquirers to the Interior Department for a copy

of the governor's report of 1904, on pages 36 to 41 of which appears a description of the divisions of the public lands in Hawaii and a digest of the land act of 1895, which sets forth the different methods by which lands may be acquired.

RECORDS OF THE PAST YEAR.

The most exceptional incident that has occurred in connection with the land department of the Territory of Hawaii during the past year was the attempt to colonize the lands of Kapaa, on the island of Kauai, with Russian immigrants from Los Angeles who had already declared their intention of becoming American citizens. The result was a complete failure. Private and disinterested philanthropy provided the funds by which representatives of these people first came to view the land in order to make a report to their friends. Arrangements were made by which from 500 to 600 people were to take up about 5,000 acres of land, a portion of which has been under cultivation for years. Many obstacles were overcome in the final adjustment of a working agreement with those who had heretofore controlled this land, under government lease, by which they were to continue the cultivation of the fields until the immigrants could take them over and under which finally they were to grind the cane produced by these immigrants. Every facility and inducement was held out to these people, as it was considered an excellent opportunity to secure a large number of those who were eligible to become American citizens. The failure was due entirely to the immigrants themselves in that, after they had stipulated the number of people who would come and occupy the land, they secured only about one-fourth of that number, and these were unable to do the work required in maintaining the lands in their present state of cultivation.

There is no question that a colony of energetic farmers, willing to undertake the ordinary amount of personal labor, could in five years have made the land produce the value at which it was offered. Stated differently, 80 per cent of the value of this land was held out to these people as an inducement to secure a class of settlers which it was supposed would be a splendid addition to the population of these islands. All this will undoubtedly be demonstrated when the land reverts to the government and is opened to general settlement.

The year has also furnished one or two noteworthy incidents of opposition to the attitude of this department in its determination, wherever possible, to dispose of the lands to the greatest number. The so-called "Thompson Settlement Association," on the island of Hawaii, demanded that a certain tract of cane land, theretofore under cultivation, be cut up into 100-acre lots, the maximum area allowed by law, and turned over to the exclusive occupancy of the nineteen persons comprising this association. Upon a refusal to accede to their demands and the cutting up of these lots into average areas of 36 acres, this association has taken the matter of the commissioner's discretion into the courts, where the case is now pending. It should be remembered in this connection that the area of government cane land under cultivation is exceedingly limited and from 30 to 40 acres is an area sufficient to furnish an independent living, and probably a greater area than can be handled by one family.

Another unusual incident of the past year has been the demand of the Kapiolani Estate (Limited), heirs of the late King Kalakaua,

that they be furnished with a patent from the department on a certain portion of the public land lying in the district of Waialua, island of Oahu.

It appears that during the early part of 1887 an auction sale of various government remnants took place and five different pieces of land were bid in by the representative of His Majesty. No payments, however, were made for the land, and it was only after the then commissioner of public lands sent His Majesty a notice that the sales would be declared null and void unless payment was made without delay that two of the five pieces were paid for and patents issued. A little later a third piece was patented to his chamberlain, upon the payment of the purchase price. This latter was at least a questionable proceeding, as there is no indication of authority from King Kalakaua transferring his right and title in this piece of land to his chamberlain, nor is there any authorization for the change in the name of the purchaser. There then remained two pieces, on one of which his heirs now desire that a patent issue. As in the nineteen years since the sale no attempt had been made to complete the transaction the department holds that the King and his heirs have rested too long on whatever rights they might have had, and it will not issue a patent except under order of court.

Thruout the year there have been one or two occasions on which the opinion has been expressed that the laws under which the lands of this Territory are handled should be done away with and the so-called "American land laws" adopted in their place.

Whoever will take the trouble to examine into this question will ascertain that under certain of the United States land laws every tract of land of any value in these islands whose title now rests in the government would be in the hands of the corporations within six months from the time that those who settled on them secured their title. These islands would be overrun by a horde of dummies who would take up the land for no other purpose than to sell it out at a big advance. I believe the sober sentiment of the great mass of the people of these islands, who are willing and capable to conduct a farm here, are satisfied with the laws as they exist at present, which from necessity are sufficiently elastic to cover the great range of conditions that exist in this small area.

On the other hand, if this sentiment in favor of the national land system is not simply a desire to secure something for nothing, but is due to a failure to give the time necessary to comprehend the present division of lands, and if it is thought that the so-called "American checkerboard system" would be simpler, the following statement will show how impracticable and difficult the application of such a system would be.

The traditions and unwritten history of the Hawaiians indicate that the land divisions of these islands were in existence before Columbus discovered America. The principal unit of division was the ahupuaa, usually a wedge-shaped piece of land running from the sea to the mountain top, bounded by ridges or other easily ascertained landmarks and given a distinctive name, thus allowing the possessor to enjoy the products of the high altitudes, the table-lands, the forests, and the seashore. These ahupuaas vary in area from 1,000 acres to 175,000 acres. Within the boundaries of the ahupuaa there is often a further subdivision called an ili, a tract of land of a few acres

or a few hundred acres, belonging to and being a part of another ahupuaa located some distance away.

At the time of the great mahele or division of lands, in the reign of Kamehameha III, the King recognized the advantage that civilization offered in a system of land titles in contradistinction to the former feudal system, under which the sovereign of the moment controlled and might made right. Under this division, made sixty years ago, the King, who owned all the land, created a commission empowered to take evidence of occupancy thruout the islands, no matter how large or small, and the natives, upon a showing of cultivation or continuous occupation, were awarded the small tracts called kuleanas. At the same time the title to the ahupuaas (less allodial) was given to the chiefs and to the government, while a generous portion was reserved for whoever might occupy the throne. From this division one large irregular ahupuaa would go to a single chief or individual, while the title to the one next adjoining would be in another individual or perhaps the government or the crown; and so on thruout the islands. Many of these awards were necessarily made by name only—that is, the land was awarded without an accurate survey. One claimant would be awarded the greater division of land, save and except the smaller divisions walled or fenced in and under cultivation by the people. Thus scattered over all and thru all at the time of the division were small irregular patches of land owned by a multitude of people, and it is impossible to estimate the number of transactions and further subdivision: that have taken place within the last half century.

Then, again, civilization found that the Hawaiian had from time immemorial divided the waters of the springs and streams and the joint owners had built irrigating ditches. Thus, whoever was awarded a kuleana was allowed with it so much of the running water as he might be able to take out of the irrigating ditches during a certain number of hours or days of the month. The Hawaiians even divided the sea adjacent to their land into certain areas and the right to fish within these areas was awarded. Some of these awards carried the right to catch certain fish only, while other varieties of fish caught in the same area belonged to the owners of other land or water.

These ancient awards and rights, tho well known and defined, are not all accurately surveyed. The smaller kuleanas located within the larger divisions were often poorly surveyed. The rapid decrease in the Hawaiian population and their failure to probate estates has left many of these without claimants, and as they are scattered by the thousands thruout the whole group, the task of locating them requires care and attention in order to be certain that the Government is not conveying property to which it has no title. Thoro and careful work by surveyors who are well posted regarding the natives, their customs and ideas of division of land, is required, and the foregoing shows clearly the tremendous—yes, the impossible task—it would be to change the present system of divisions. In fact, the chances are that such a change would only end in greater confusion.

For further light on this subject reference may be made to the article by Mr. Wall, the Territorial surveyor, forming a part of this report.

It is pleasing to note that the California agriculturists who took up the lands at Wahiawa, at \$3 to \$5 an acre, in the year 1899, have demonstrated that pineapple culture is here to stay, because it is profitable, and that thru their thrift and energy their lands are now worth from \$100 to \$250 an acre.

Mr. Jared Smith, special agent in charge of the United States Agricultural Experiment Station here, has successfully demonstrated that tobacco, which works up into a first-class cigar wrapper, can be grown on the lands of Hamakua, Island of Hawaii.

Fifty or sixty homesteaders at Palolo appear to be firmly established and their success seems to be creating a demand for small holdings sufficiently large to produce garden truck, poultry, etc., on a small scale by wage-earners who would starve to death on an isolated quarter section.

A survey of 1,500 acres of cane fields, formerly under lease to the Hakalau Sugar Company (Limited), is near completion, and the number of applicants is greater than the number of lots that will be obtained in the division into areas of from 25 to 30 acres.

A great deal of detail work has been accomplished by this department—more than can perhaps be shown by the tables following.

Land revenue shows a considerable falling off from that of last year. A detailed examination will show that this is largely due to the collection during the previous years of back rents and delinquent payments.

Receipts of the public lands department for the year ended June 30, 1906.

LAND REVENUE.

Rents:

General leases	\$106,360.63
Right of purchase leases	8,213.96
Olaa leases	333.28
Puukapu leases	2.46
Kaimu leases	50.01

Interest:

Homesteads	301.17
Special agreements	650.34
Cash freeholds	51.03
Office fees	311.50
Patent fees	405.00

\$116,679.38

LAND SALES.

Purchase right of purchase leases	5,899.88
Purchase Olaa agreements	181.20
Purchase homesteads	593.50
Purchase special agreements	1,020.85
Purchase cash freeholds	805.31
Cash sales "Auction"	12,481.00
Government commutation fees	1,046.41
	<u>22,028.15</u>
Government realizations	57.65
Total	<u>138,765.18</u>

Comparative statement of receipts, 1905 and 1906.

	Twelve months to June 30—	
	1905.	1906.
RENTS.		
General leases.....	\$119,540.59	\$106,360.63
Right of purchase leases.....	7,027.80	8,213.96
Olaa leases.....	1,316.73	333.28
Puukapu leases.....	3.00	2.46
Kaimu leases.....	29.95	50.01
	<u>127,918.07</u>	<u>114,960.34</u>
INTEREST.		
Homesteads.....	53.10	301.17
Special agreements.....	1,683.05	650.34
Cash freeholds.....	124.22	51.03
Olaa agreements.....	301.62	
Office fees.....	358.90	311.50
Patent fees.....	325.00	405.00
	<u>2,845.89</u>	<u>1,719.04</u>
Government realizations.....	<u>402.10</u>	<u>57.65</u>
LAND SALES.		
Right of purchase leases.....	3,835.93	5,899.88
Special agreements.....	10,818.50	1,020.85
Homesteads.....	128.80	593.50
Cash freeholds.....	767.37	805.31
Olaa agreements.....	856.35	181.20
Kaimu leases.....		
Government commutations.....	1,734.82	1,046.41
Cash sales 'Auction'.....	19,112.15	12,481.00
	<u>37,253.92</u>	<u>22,028.15</u>
Total.....	<u>168,419.98</u>	<u>138,765.18</u>

Comparative statement of receipts, 1901 to 1906, inclusive.

	Land revenue.	Land sales.
Year ended June 30—		
1901.....	\$98,918.54	\$35,931.33
1902.....	103,886.09	13,036.49
1903.....	105,078.15	17,991.23
1904.....	124,411.04	18,962.42
1905.....	131,166.05	37,253.92
1906.....	116,737.03	22,028.15
Total.....	<u>680,197.51</u>	<u>145,203.54</u>

Total for the six years, \$825,401.05.

OPERATING EXPENSES.

Operating expenses for the year have very slightly exceeded those of the previous year which, as the table of comparisons will show, were the smallest of any year since annexation. It is hoped that the coming legislature will make a more liberal allowance for the work of surveying our government lands and for the operating expenses of this department. Since taking up the work of commissioner of public lands, much time and energy have been given to the improvement and straightening out of the office records. These are now in good condition, and a large appropriation will mean a greater force, with more capacity for the intelligent development of these lands, the largest asset which the Territory possesses.

Expenditures for the year ended June 30, 1906.

	Appropriation for year ended June 30, 1906.	Drawn.	Balance.
Salary of commissioner.....	\$3,000.00	\$3,000.00	.....
Salary of secretary and subagent, fifth land district.....	1,800.00	1,800.00	.....
Salary of first clerk.....	1,200.00	1,200.00	.....
Salary of second clerk.....	900.00	900.00	.....
Pay of subagents and rangers.....	4,000.00	3,605.00	.....
Incidentals and general expenses (for two years to June 30, 1907).....	7,200.00	4,232.81	\$2,967.19
Total.....	18,100.00	14,737.81	2,967.19

Comparative statement of expenditures, January 1, 1900, to June 30, 1906.

Eighteen months, January 1, 1900, to June 30, 1901.....	\$22,423.37
Twelve months, July 1, 1901, to June 30, 1902.....	15,950.70
Twelve months, July 1, 1902, to June 30, 1903.....	16,200.54
Twelve months, July 1, 1903, to June 30, 1904.....	20,014.85
Twelve months, July 1, 1904, to June 30, 1905.....	14,004.95
Twelve months, July 1, 1905, to June 30, 1906.....	14,737.81

Total..... 103,332.22

Lands available for settlement, lease, sale, or other disposition each year from 1906 to 1915, surveyed and unsurveyed.

Expiration of lease.	Land available.	Annual rent.	Expiration of lease.	Land available.	Annual rent.
1906.....	269,548.90	\$17,749.20	1912.....	14,852.13	\$3,190.50
1907.....	224,203.43	8,446.00	1913.....	109,578.02	8,922.00
1908.....	127,468.16	8,645.12	1914.....	15,398.25	1,770.00
1909.....	13,033.10	7,859.75	1915.....	1,626.46	710.00
1910.....	5,696.08	2,146.00			
1911.....	41,335.00	2,830.00	Total.....	822,739.53	62,268.57

In the foregoing table for the year 1906 is included the entire area not now under lease, or lands that have not been disposed of during previous years; and also that area the leases on which expire during the remaining half of this calendar year. Then follows the area and rental in the aggregate of all leases expiring during each calendar year thereafter to 1915.

LANDS REVERTED.

It will be noted from the following table that during the present fiscal year only twenty-eight thousand and odd acres of land have come into the possession of the Government thru the expiration of leases:

Disposition of lands on which leases have expired during year ended June 30, 1906.

	Acres.
Total area reverting thru expiration of leases.....	28,195.60
Forest land not disposed of.....	21,264.50
Sold.....	39.00
Leased (reserving right of homestead).....	1,482.00
Divided into homesteads.....	1,941.50
Now being divided into homesteads.....	1,800.00
Held under tenancy at will.....	1,336.00
Not disposed of.....	332.60
Total.....	28,195.60

Of the two hundred and sixty-nine thousand and odd acres given above as available this year by far the larger portion is represented by two large cattle ranches whose leases expire this fall.

Lands surveyed and made available for settlement during the year ended June 30, 1906.

Location.	Lots.	Area.
<i>Island of Hawaii.</i>		
Kaumana Hilo.....	73	9.00
Kaunamano, Kau.....	57	1,941.82
<i>Island of Maui.</i>		
Keanae, Koolau.....	32	31.04
Wailua, Koolau.....	94	111.92
Omaopio, Kula.....	20	1,025.10
Omaopio, Kula (1 reserve, 2 remnants).....	3	40.78
<i>Island of Oahu.</i>		
Palolo, Kona.....	14	14.98
Alewa, Kona.....	80	115.60
Kanohouluwi.....	5	48.20
<i>Island of Kauai.</i>		
Kalaheo, Kona.....	36	207.77
Total.....	414	3,546.21

Whenever a large parcel of land is put upon the market or turned over to settlers there are usually a few of the lots that revert to the Government, or in some instances there are not sufficient applicants for the number of lots that have been surveyed or laid out.

The following tables show the location, area, and appraised value of these parcels of land which are available for immediate settlement. It will be noted that their aggregate area is some 41,000 acres.

List of untaken lots.

FIRST LAND DISTRICT.

Map No.	Location.	Lots.	Aggregate area.	Appraised value.	Class.
			<i>Acres.</i>		
2	Kaimu section, Puna, Hawaii...	7	354.30	\$1,325.40	Agricultural, pastoral.
2	Kamali section, Puna, Hawaii...	3	190.30	827.95	Do.
14	Kaoho section, Puna, Hawaii...	4	322.76	1,858.25	Do.
16	Opihikao section, Puna, Hawaii...	8	614.60	1,106.25	Do.
17	Kupahua section, Puna, Hawaii...	3	153.00	545.50	Do.
22	Nanawale section, Puna, Hawaii...	1	3.65	21.90	Do.
23	Olaa section, Puna, Hawaii.....	344	20,245.49	102,659.18	Do.
32	Kaimu-Makena, Puna, Hawaii...	10	284.54	316.91	Do.
33	Kaimu-Kalapana, Puna, Hawaii...	2	37.28	185.58	Do.
34	Kikala-Keokea, Puna, Hawaii...	12	801.97	800.62	Pastoral and waste.
35	Keaunohana-Kehena-Keekee, Kamali section, Puna, Hawaii...	10	568.06	354.69	Do.
40	Keonepoki-Iki, Puna, Hawaii...	17	164.24	384.82	Do.
	Makaoku section, Hilo, Hawaii...	58	10.45	1,000.00	House lots.
	Kaumana section Hilo, Hawaii...	73	5.34	730.00	Do.
3	Ponahawai section, Hilo, Hawaii...	1	98.20	491.10	Pastoral and agricultural.
13	Upper Kaiwiki, Hilo, Hawaii....	7	269.25	2,154.00	Do.
	Honomu section, Hilo, Hawaii...	3	87.23	581.28	Do.
24	Upper Maulua, Hilo, Hawaii....	16	1,586.50	7,932.50	Do.
	Laupahoehoe, Hilo, Hawaii.....	40	950.74	9,507.40	Do.
Total.....		619	26,747.90	132,783.33	

List of untaken lots—Continued.

SECOND LAND DISTRICT.

Map No.	Location.	Lots.	Aggregate area.	Appraised value.	Class.
			<i>Acres.</i>		
12	Niupea section, Hamakua, Hawaii.	2	88.54	\$748.06	Agricultural, pastoral.
11	Paaulo section, Hamakua, Hawaii.	5	193.59	4,115.25	Do.
27A	Kaapahu and Pohakea section, Hamakua, Hawaii.	39	853.50	6,818.00	Do.
	Pohakea section, Hamakua, Hawaii.	5	324.10	1,107.20	Do.
10	Ahualoa section, Hamakua, Hawaii.	5	365.22	742.78	Do.
18	.....do.....	1	20.80	156.00	Do.
18	Awini section, North Kohala, Hawaii.	2	159.40	637.60	Do.
26	Kaauhuhu section, North Kohala, Hawaii.	9	204.35	806.55	Do.
26A	.....do.....	7	48.37	.....	Homesteads, agricultural pastoral.
	Pauani section, South Kohala, Hawaii.	17	587.30	1,330.50	Agricultural, pastoral.
15	Puukapu section, South Kohala, Hawaii.	1	132.73	432.03	Do.
	Total.....	101	2,977.50	16,893.97	

THIRD LAND DISTRICT.

14	Kaulana section, North Kona, Hawaii.	4	132.17	\$278.62	Agricultural, pastoral.
6	Akahipuu section, North Kona, Hawaii.	2	4.07	122.30	House lots.
	Kalaea-Ooma, North Kona, Hawaii.	6	737.50	239.97	Pastoral.
	Honuaula-Kealahakehe, North Kona, Hawaii.	53	2,549.00	7,647.00	Do.
25	Kalamakowali section, South Kona, Hawaii.	1	33.30	333.00	Agricultural, pastoral.
	Kukuiopae section, South Kona, Hawaii.	2	33.20	84.56	Do.
26	Olelomoana-Ophihale section, South Kona, Hawaii.	3	85.70	332.70	Do.
36	Papa section, South Kona, Hawaii.	11	80.01	.....	Homesteads, agricultural, pastoral.
	Kioloakaa-Keaa section, Kau, Hawaii.	5	159.90	412.95	Pastoral.
	Kaunamano section, West Kau, Hawaii.	57	1,941.50	14,926.64	Agricultural, pastoral.
17	Ninole-Wallau section, West Kau, Hawaii.	6	96.32	382.70	Pastoral.
	Total.....	150	5,852.67	24,760.44	

FOURTH LAND DISTRICT.

[Islands of Maui and Molokai.]

13	Kamaole section, Kula, Maui....	63	3,322.45	.....	Homesteads, pastoral.
	Waiakoa section, Kula, Maui....	6	104.88	\$427.73	Agricultural, pastoral.
	Alae, 3 and 4 sections, Kula, Maui.	15	420.00	1,260.00	Do.
7	Pulehuiki-Kamehameiki, Kula, Maui.	2	24.82	74.46	Do.
	Keanae section, Koolau, Maui....	16	31.04	.....	Homesteads, agricultural, pastoral, and house lots.
	Wallua section, Koolau, Maui....	47	111.92	.....	Do.
20	Nahiku section, Koolau, Maui....	4	90.94	193.40	Pastoral.
20A	.....do.....	4	24.80	.....	Homesteads, agricultural, and house lots.
1	Kaupo section, Koolau, Maui....	2	128.94	386.82	Agricultural and pastoral.
1	.....do.....	6	81.93	.....	Homesteads, agricultural, and house lots.
9	Kahakuloa section, Koolau, Maui	9	786.75	990.00	Agricultural and pastoral.
9A	.....do.....	29	3.34	334.00	Taro lots.
23	Kamiloloa section, Molokai.....	1	20.00	45.00	Pastoral.
24	Hoolahua section, Molokai.....	5	76.14	350.00	Do.
	Total.....	209	5,227.95	4,061.41	

List of untaken lots—Continued.

FIFTH LAND DISTRICT.

Map No.	Location.	Lots.	Aggregate area.	Appraised value.	Class.
			<i>Acres.</i>		
	Alewa, Kona Oahu.....	81	114.76	\$22,952.00	House lots.
	Hauula, Koolauloa Oahu.....	15	113.34	2,833.50	Agricultural.
	Hauula, Koolauloa Oahu.....	5	2.30	1,150.00	Beach house lots.
	Total.....	101	230.40	26,935.50	

SIXTH LAND DISTRICT.

	Kalaheo, Kona, Kauai.....	29	168.15	\$582.38	Agricultural, pastoral.
--	---------------------------	----	--------	----------	-------------------------

SUMMARY.

District.	Lots.	Area.	Appraised value. ^a
		<i>Acres.</i>	
First land district.....	619	26,747.90	\$132,783.33
Second land district.....	101	2,977.50	16,893.97
Third land district.....	150	5,852.67	24,760.44
Fourth land district.....	209	5,227.95	4,061.41
Fifth land district.....	101	230.40	26,935.50
Sixth land district.....	29	168.15	582.38
	1,209	41,204.57	206,017.03

^a Appraisements allow no value for homestead lots.

LAND PATENTS ISSUED.

Herewith is a complete statement of all of the land patents issued during the present fiscal year; also of the exchanges made, with a summary of the total. The average per acre for the year was \$7.49, as against \$10.15 for the previous year.

REPORT OF THE GOVERNOR OF HAWAII.

Land patents issued during the twelve months ended June 30, 1906.

Num- ber.	Patentee.	Date.	Area.	Location.	Consider- ation.	Remarks.
4896	Antone Mendones.	Aug. 3, 1905	<i>Acres.</i> 101.23	Nahiku Koolau, Maui.	\$253.07	Right of purchase lease.
4897	D. Pall.	July 1, 1905	22.34	Kaiao, Honouliuli, Maui.	199.00	Cash purchase.
4898	William Henry	July 8, 1905	10.18	Kanohouliuli, Kaneohe, Koolau-poko, Oahu.	800.00	Do.
4899	Antone Ribeiro	Aug. 3, 1905	7.98	Waipunalet, Hilo, Hawaii.	80.65	Right of purchase lease.
4900	Makela.	do.	21	Olaa, Puna, Hawaii.	126.00	Olaa reservation.
4904	Hawaiian Trust Co. (Limited).	July 26, 1905	587	Lualualei, Waianae, Oahu.	4,700.00	Cash purchase.
4905	Josao de Castello.	Nov. 13, 1905	16.33	Waikamalo, Maui, Hilo, Hawaii.	244.95	Right of purchase lease.
4906	Isabel Marques	do.	20	Kaapahu, Hamakua, Hawaii.	200.00	Homesteads.
4907	A. P. Ornelas.	do.	22.25	do.	278.12	Right of purchase lease.
4908	Robert Laing.	do.	23.23	Kaahuhu, North Kohala, Hawaii.	160.00	Time payment.
4909	Makali.	do.	10.32	Pulehuiki and Kamehameki.	20.64	Homesteads.
4910	Thos. McKinley.	do.	21.30	Waipunalet, Hilo, Hawaii.	213.00	Do.
4911	Uianu (w).	do.	9.7	Olaa, Puna, Hawaii.	116.40	Right of purchase lease.
4912	D. Nathaniel.	do.	10.3	do.	123.60	Do.
4913	Mrs. K. Ewaliko.	do.	8.4	do.	112.80	Do.
4914	Franz Buchholtz.	do.	930.41	Papa I, South Kona, Hawaii.	930.00	Do.
4915	Emily Hsote.	Dec. 5, 1905	7.2	Keonepoko-Iki, Puna, Hawaii.	15.44	Do.
4916	Kahekeola Kane (w).	do.	10	do.	30.00	Do.
4917	W. O. Kamakaokalani	do.	10	Kamiahiku, Puna, Hawaii.	80.00	Do.
4918	J. A. K. Ohia.	do.	28.9	do.	144.50	Do.
4919	W. K. Kanehaku.	do.	11.5	Malama, Puna, Hawaii.	69.00	Do.
4920	John Annie.	do.	4.05	do.	16.20	Do.
4921	Mrs. Ape Kaoliwi.	do.	7.4	do.	29.60	Do.
4922	Herman Meyer.	Dec. 27, 1905	20.00	Waipunalet, North Hilo, Hawaii.	240.00	Homesteads.
4923	Nellie J. Rickard.	do.	78.16	Ahualoa, Hamakua, Hawaii.	781.60	Right of purchase lease.
4924	Josao Correia.	do.	15.21	do.	152.10	Do.
4925	Jose Laurence.	do.	13.3	do.	113.00	Do.
4926	Jose Goncalves Andrade	do.	11.8	do.	138.00	Do.
4927	S. I. Shaw.	Jan. 16, 1906	a 17.177	Hauula, Koolau-poko, Oahu.	330.00	Cash purchase.
4928	Pauline F. Kodeik.	do.	a 18.552	do.	375.00	Do.
4929	August Humburg.	do.	a 14.576	do.	455.00	Do.
4930	James F. Morgan.	do.	a 5.498	do.	155.00	Do.
4931	Walter H. Bradley	do.	a 5.987	do.	140.00	Do.
4932	John Vieira.	Feb. 12, 1906	20.19	Kahuku, Hilo, Hawaii.	323.04	Homesteads.
4933	Manuel Vieira.	do.	19.60	do.	274.40	Do.
4934	Joshua Waiohinu.	do.	33	Paaulo, Hamakua, Hawaii.	330.00	Right of purchase lease.
4935	Edwin Ormsted.	do.	26	Olaa, Puna, Hawaii.	502.00	Time payment.
4936	Olaf Ormsted.	do.	19.9	do.	570.00	Do.
4937	H. A. Baldwin.	Feb. 12, 1906	70.50	Makawao, Hamakua-poko, Maui.	2,800.00	Cash purchase.
4938	Bernard Rudolf Banning.	do.	65.42	Keaalan, Kaneohe, Koolau-poko.	1.00	Land exchange.
4939	S. W. Pika.	Mar. 5, 1906	11.12	Kamali, Puna, Hawaii.	88.96	Right of purchase lease.
4940	S. K. Peter.	do.	27.48	do.	27.48	Do.
4941	Kini.	do.	10.09	Olaa, Puna, Hawaii.	25.25	Cash freehold.
4942	Koakulana.	do.	9.8	do.	24.50	Do.

4943	Kamakuiwa Manono.....	do.	9.84	do.	24.00	Do.
4944	J. Kakuauhi.....	Mar. 24, 1906	28.00	Kamali, Puna, Hawaii.....	168.00	Right of purchase lease.
4945	Antonio Jocklin.....	do.	14.65	Amulou, Hamakua, Hawaii.....	140.65	Homesteads.
4946	Joao de Medeiros.....	do.	15.35	do.	153.50	Do.
4947	John Kapu.....	do.	89.00	Nahiku, Koolau, Maui.....	291.20	Right of purchase lease.
4948	O. A. Steven.....	do.	13.53	Olaa, Puna, Hawaii.....	125.00	Time payment.
4949	Libert Hubert Roynsaems, bishop of Zeugma of the Roman Catholic Church in the Territory of Hawaii.	Apr. 20, 1906	4	Wallua, Koolau, Maui.....	1.00	Land exchange.
4950	John Unuiwi.....	May 2, 1906	11.38	Olaa, Puna, Hawaii.....	28.45	Cash freehold.
4951	Joseph Kaauhau.....	do.	22	Waikamalo, Mauiua, Hilo, Hawaii.....	330.00	Right of purchase lease.
4952	E. C. Moller.....	do.	30	do.	450.00	Do.
4953	Henry J. Lyman.....	do.	10.7	Kronopoko-iki, Puna, Hawaii.....	30.00	Cash purchase.
4954	do.	do.	60	Kamali, Puna, Hawaii.....	700.00	Do.
4955	J. T. Baker.....	May 24, 1906	10.013	Puukapu Bay, Waimea, South Kohala, Hawaii.....	740.00	Do.
4956	Albert Waterhouse and E. Kopke.....	May 21, 1906	4,700	Niau Kalahi Kona, Oahu.....	125.00	Do.
4957	Mai F. Davis.....	do.	19.65	Tinianus Heights, Honolulu, Oahu.....	21.75	Do.
4958	Sol Kalima.....	do.	18.26	Olaa, Puna, Hawaii.....	162.00	Cash freehold.
4959	Manuel de Costa.....	do.	33.69	Waipanae, Hilo, Hawaii.....	264.64	Right of purchase lease.
4960	Mrs. Grace W. Peckey.....	do.	16.25	Kauiiki, Hilo, Hawaii.....	40.82	Do.
4961	Samuel Manuka Spencer.....	do.	17.1	Puukapu, Waimea, South Kohala, Hawaii.....	40.00	Time payment.
4962	Annie K. Fuksa.....	do.	17.1	Kaunihuhu, North Kohala, Hawaii.....	85.50	Right of purchase lease.
4963	R. K. Moses.....	June 4, 1906	49.22	Kamohiku, Puna, Hawaii.....	462.20	Do.
4964	Frank Forsee.....	do.	11.2	Waikamalo, Mauiua, Hilo, Hawaii.....	28.00	Cash freehold.
4965	Puukohola.....	do.		Olaa, Puna, Hawaii.....		
Total.....			2,840.623		21,285.61	

a Square feet.

REPORT OF THE GOVERNOR OF HAWAII.

Land exchanges.

District.	No.	Area.
First land district.....		<i>Acres.</i>
Second land district.....		(a)
Third land district.....		(a)
Fourth land district.....		(a)
Fifth land district.....	1	4.00
Sixth land district.....	1	65.42
Total.....	2	69.42

a No exchange.

Summary, not including exchanges.

	Area.	Considera- tion.	Average per acre.
	<i>Acres.</i>		
Right of purchase leases.....	1,680.23	\$6,439.83	\$3.83
Homesteads.....	141.41	1,565.23	11.06
Time payment.....	96.66	1,397.00	14.60
Cash freeholds.....	60.64	152.55	2.50
Cash purchase.....	772.263	11,603.00	15.00
Olaa reservation.....	21.00	126.00	6.00
Total.....	2,771.203	21,285.61	7.49

Lands taken up under general provisions of the land act of 1895 (other than cash sales and Olaa purchase under special conditions of Part IX).

Land district.	Rights of purchase leases.			Cash freeholds.			Special agreements.			Home- steads.	
	No.	Acres.	Value.	No.	Acres.	Value.	No.	Acres.	Value.	No.	Acres.
First, Hilo and Puna	23	859.01	\$9,143.37	7	78.50	292.64	1	13.53	125.00	.....	.....
Second, Hamakua and Kohala.....	16	1,077.43	4,139.02	1	48.65	735.00	.....	.....	.....	12	79.58
Third, Kona and Kau Fourth, Maui, Molo- kai, etc.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fifth, Oahu.....	14	1,812.53	22,660.75	20	34.52	4,461.00	.....	.....	.....	14	15.984
Sixth, Kauai.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	53	3,748.97	35,943.14	28	161.67	5,488.64	1	13.53	125.00	26	95.564

SUMMARY OF ABOVE.

	No.	Acres.	Value.
Right of purchase leases.....	53	3,748.97	\$35,943.14
Cash freeholds.....	28	161.67	5,488.64
Special agreements.....	1	13.53	125.00
Homestead leases.....	26	95.564	.....
Total.....	108	4,019.734	41,556.78

Comparative statement of lands taken up under general provisions of land act 1895.

	Right of purchase leases.		Cash freeholds.		Special agreements.		Homestead leases.		Total area.	Total value.
	No.	Acres.	No.	Acres.	No.	Acres.	No.	Acres.		
Twelve months to June 30—									<i>Acres.</i>	
1905.....	46	1,857.92	11	113.19	5	95.52	36	299.01	2,365.64	22,879.65
1906.....	53	3,748.97	28	161.67	1	13.53	26	95.564	4,019.734	41,556.78

Cash sales "auction."

Location.	Area.	Purchase price.
Kanaio, Honuaula, Maui.....	acres..... 22.34	\$199.00
Kanohouliwi, Kaneohe, Koolaupoko, Oahu.....	do..... 10.18	800.00
Lualualei, Waianae, Oahu.....	do..... 587.00	4,700.00
Hauula, Koolauloa, Oahu.....	do..... 17,177	330.00
Hauula, Koolauloa, Oahu.....	do..... 18,552	375.00
Hauula, Koolauloa, Oahu.....	do..... 14,576	455.00
Hauula, Koolauloa, Oahu.....	do..... 5,498	155.00
Hauula, Koolauloa, Oahu.....	do..... 5,987	140.00
Makawao, Hamakuapoko, Maui.....	acres..... 70.50	2,800.00
Keonepoko-iki, Puna, Hawaii.....	do..... 10.7	30.00
Kamali, Puna, Hawaii.....	do..... 60.0	700.00
Puukapu, South Kohala, Hawaii.....	do..... 10,013	740.00
Niau, Kalihi, Kona, Oahu.....	do..... 4,700	54.00
Tantalus Heights, Kona, Oahu.....	do..... 1,965	125.00
Total.....	772.263	11,003.00

SUMMARY.

	Area.	Consideration.	Average per acre.
	<i>Acres.</i>		
Right of purchase leases.....	1,680.23	\$6,439.83	\$3.83
Homesteads.....	141.41	1,565.23	11.06
Land exchange.....	69.42	2.00	.....
Time payment.....	95.66	1,397.00	14.60
Cash freeholds.....	60.64	152.55	2.50
Cash purchase.....	772.263	11,603.00	15.00
Olaa reservation.....	21.00	126.00	6.00
Total.....	2,840.623	21,285.61	7.49

Comparative statement of summary.

	Number of patents.	Right of purchase leases.	Homesteads.	Land exchange.	Time payment.
		<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>
Twelve months to June—					
1905.....	68	442.01	199.58	8.96	415.30
1906.....	97	1,680.23	141.41	69.42	95.66

	Cash freeholds.	Cash purchase.	Olaa reservation.	Total.	Total consideration.	Average per acre.
		<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>		
Twelve months to June—						
1905.....	120.34	2,179.52	240.86	3,606.57	\$36,613.26	\$10.15
1906.....	60.64	772.263	21.00	2,840.623	21,285.61	7.49

LEASES MADE.

The small number of leases made during the year is noteworthy in comparison with the past. Of general leases, there have been but five made, covering an area of 555.32 acres, with an aggregate annual rental of \$1,232.

General leases issued during the year ended June 30, 1906.

Date.	Lessee.	Location.	Class of land.	Area.	Term of lease.	Annual rent.	Lease to commence from—
Sept. 26, 1903	Onomea Sugar Company, ^a	Kawainui, Hilo, Hawaii.	Agricultural..	<i>Acres.</i> 162.30	<i>Yrs.</i> 5	\$480.00	July 19, 1903
Do.....	do. ^a	do.....	Forest, etc....	321.90	21	50.00	Do.
July 18, 1905	G. C. Akins...	Pololu, North Kohala, Hawaii.	Rice and agricultural.	17.08	5	250.00	July 1, 1905
June 23, 1906	Hee Fat.....	Anaholo, Hanalei, Kauai.	Rice and kula.	45.00	5	301.00	June 23, 1906
Do.....	C. Lai Young.	Waikalua-waho, Kaneohe Koolaupoko, Oahu.	Agricultural..	9.04	5	151.00	Do.
	Total.....			555.32		1,232.00	

^a Held up to check survey.

SUMMARY.

General leases:	
Number.....	5
Area.....	555.32
Annual rental.....	\$1,232.00

Land patents issued on land commission awards during the twelve months ended June 30, 1906.

Number.	Area.	Patentee.	Location.
8174.....	840 fathoms.....	Lolohi.....	Kaliu, Honolulu, Oahu.
8175.....	1 ruda 34 roda.....	Hilauea.....	Kaalaalalo, Honolulu, Oahu.
8176.....	1 ruda 3 roda.....	Kuluiki.....	Do.
8177.....	4,060 acres.....	C. Kanaina.....	Kapoho, Puna, Hawaii.
8178.....	4.63 acres.....	Kaaha.....	Kawananakoa, Honolulu, Oahu.
8179.....	13 roda.....	N. Namauu.....	Lapakea, Lahaina, Maui.
8180.....	33 perka.....	A. Kaeo.....	Pakala, Lahaina, Maui.
8181.....	1 acre 28 perches.....	A. Paki.....	Do.

Land licenses.

Date of agreement.	Lessee.	Location.	Term of lease.	Annual rent.
Aug. 22, 1905	Kauai Electric Co. (Limited) ^a	Waioli, Hanalei, Wailua, and Kalaeo, Kauai.	<i>Years.</i> 50	^b \$10.00
Apr. 14, 1906	Kaeleku Sugar Co. (Limited) c.....	Wailua, Hana, Maui.....	21	200.00

^a The payment for rent to begin upon completion of poles and wires from Wainiha to Hanapepe, Kauai, which must be within four years from date.

^b For each mile of pole and line erected.

^c License to confine, conserve, collect, impound, and divert all the running surface water.

Lands transferred to other departments.

[To superintendent of public instruction.]

Date of transfer.	Name of land.	Location.	Area.
			<i>Acres.</i>
February 16, 1906.....	Waikoa	Kalihi, Oahu.....	a 188, 530
April 10, 1906.....	Kaunamano.....	Hamakua, Hawaii.....	.96
April 18, 1906.....	Waialoa.....	Kula, Maui.....	4.00
April 25, 1906.....	Hueclo.....	Mokupapa, Hamakualoa, Maui.....	5.32
Do.....	Kaniahiku.....	Puna, Hawaii.....	2.50

a Square feet.

Lands received from other departments.

[From superintendent of public instruction.]

Date received.	Name of land.	Location.	Area.
			<i>Acres.</i>
December 1, 1905.....	Hianaloli, 1.....	North Kona, Hawaii.....	193.70
December 5, 1905.....	Kalama.....	Napoopoo, Hawaii.....	168.50
December 22, 1905.....	Waiawa.....	Ewa, Oahu.....	.34
April 10, 1906.....	Kaunamano.....	Hamakua, Hawaii.....	1.00
May 9, 1906.....	Waimea.....	South Kohala, Hawaii.....	1.00

[From superintendent of public works.]

April 6, 1906.....	Kapaloa.....	Pauoa, Oahu.....	2.75
April 9, 1906.....	Hanaiaakamalama.....	Nuanu Valley, Oahu.....	10.10
Do.....	Reservoir lot.....	do.....	.10
April 13, 1906.....	Niau.....	Kalihi, Oahu.....	a 4,700
Do.....	Tantalus.....	Honolulu, Oahu.....	a 1,965
May 2, 1906.....	Makaoku.....	Iiilo, Hawaii.....	10.45

a Square feet.

INTERNATIONAL HEALTH WORK OF HAWAII.

[By L. E. PINKHAM.]

Altho, geographically, the Hawaiian Islands are the most isolated spot on the globe, frequent communication radiates from them to the continents of both hemispheres. All disease that can be transmitted by vessel communication across the Tropics of the Pacific Ocean meets the most searching inspection and interception at the port of Honolulu, midway of the voyage, and at a time subsequent to the usual period of incubation of contagious disease. Thus the Federal quarantine authorities stationed at Honolulu have a peculiar responsibility, and have the anomalous duty of guarding against disease from all points of the compass and protecting in transit distant ports situated at opposite points of the compass. Their efforts are supplemented by the local health authorities.

In recognition of this responsibility the United States quarantine station at Honolulu is being developed into one of the largest and best equipped stations under the American flag. Where the safety of the ports of destination and local health requires, the persons affected and those exposed are promptly removed and cared for in quarantine quarters, and proper disinfection of the vessel is undertaken. The station, service, and food are so excellent that no hardship is experienced, unless detention be so regarded. Such is the

care taken on trans-Pacific steamships that detention is very infrequent. Thus mainland and other ports are notably protected by the fact that thru travel touches at Honolulu.

The presence of certain contagious and infectious diseases, such as plague and leprosy, in the Orient or India has no restraining influence on travel. As a matter of fact white races have little concern in either, as it is a most infrequent exception for a white person to be affected; in fact, applied intelligence and correct living render them practically immune.

The Hawaiian Islands have had some experience with bubonic plague. Its first experience caused uncalled-for apprehension, expense, and destruction of property. In the subsequent six years and a half to date the authorities have become skilled in combating any endemic or imported recurrence of the disease. In this long period this disease has occasioned the death of but two white persons, one of whom, by his mode of living, radically invited contagion, and the surroundings of the other were questionable from a hygienic point of view.

While unrelenting official vigilance is the price of public health in the Tropics and sub-Tropics, where frost lends no aid, this fact is so well appreciated and acted upon that neither the inhabitants, the visitor, nor traveler need consider health conditions in the Hawaiian Islands, for they are, in comparison, constantly normal.

LEPROSY—ITS SOCIAL AND ECONOMIC ASPECTS AND ADMINISTRATION.

The experience of the Hawaiian race has varied little from that of other aboriginal races. Lacking knowledge of the diseases of civilization, or their control or remedies, this race has suffered accordingly, and become susceptible to certain infections to an infinitely greater degree than other races dwelling among them.

Between forty and fifty years ago the Hawaiians found numbers of their race affected by a disease the most tragic, socially, that ever afflicted mankind—leprosy—which was undoubtedly brought from the Orient and was designated by the natives as the "Chinese sickness."

On January 6, 1866, was established one of the most remarkable institutions in existence—the leper settlement on the island of Molokai. The village is situated on a tongue of land, of some 6,348 acres, that juts into the sea which surrounds three sides, and on the remaining side are perpendicular cliffs, from 200 to 300 feet in height, forming a natural and practically impassable barrier to exit by land. Communication by sea is limited to one steamer call per week from which no person, the superintendent excepted, is allowed to land, and on which officials only may depart, except by special permit of the board of health. The scenery is notable, impressive, and rarely equaled.

The growth of this institution has been gradual in scope and administration. Its record has been one of ever-increasing care and kindness, as well as the carrying out of its mission of protection to the general population of the islands.

In whatever measure severity may, at times in the past, have been used in apprehending lepers, the process of law is now rarely used, for officials prefer to deal with the afflicted ones, not as outcasts

of society, but as deserving of the same consideration, care, and sympathy accorded to persons suffering from other incurable and lingering disease. From government physicians, covering nearly every district of the islands, and other sources, information is lodged with the board of health that a certain person has, or is suspected of having, leprosy. As soon as transportation can be secured the president of the board of health usually sends a written invitation, either direct or thru the government physician, to the person suspected to call at his office or report at the receiving station in Honolulu, stating that all expenses will be paid, and, if found free from the disease, that the patient will be promptly returned home. If there is any doubt concerning a case, the person is not sent to the receiving station until after a preliminary bacteriological examination. The result of this policy is mutual confidence, which is rarely abused. If abused, the process of the law is put in motion.

It is now common for afflicted persons to carefully settle their affairs, avoiding contact with others during the few days necessary, and then, unattended officially, to proceed to the receiving station at Honolulu. The sensibilities are thus guarded and the state of mind and spirit is that of voluntary surrender of liberty and submission to care and treatment.

The bacilli of leprosy are found in the tissues of the body, and on the disclosures of the microscope, in the hands of the bacteriologist of the board of health, depends the detention of a leper suspect. If the bacilli are not found, the person is returned home with a certificate to that effect. If found, the person is held for examination by a board of four additional physicians. At this examination the suspect may be represented by a physician of his own selection and may demand further confirmatory bacteriological examination. The full board of examiners render their decision, in each case declared leprosy, to the board of health, which confirms the declaration and formally orders transportation to the leper settlement on the island of Molokai.

Within the settlement the Bishop Home, in charge of five Franciscan Sisters, domicils 79 women and girls; the Baldwin Home, in charge of Catholic Brothers, domicils 118 men and boys; and the Bay View Home, for the more helpless, cares for 38 persons; while 593 have homes of their own within the 488 buildings in the settlement. There are resident, 58 helpers (kokuas) and 18 persons, including clergymen, persons of religious orders, officials, and physicians.

Six churches and a Young Men's Christian Association building afford religious privileges; several assembly halls, band stand, race track, baseball grounds, and shooting ranges furnish means of amusement. Two small brass bands, glee clubs, pianos, organs, and smaller instruments furnish music.

A number of the most modern conveniences are being or about to be established, consisting of a steam poi (a native substitute for bread) factory, a first-class steam laundry, an ice plant, a power wood yard, new and enlarged operating dispensary, hospital, and increased water supply.

The extensive United States leprosy investigation station is within the borders of the settlement.

Two companies at the settlement catch fish which are purchased by the superintendent for consumption by the lepers and their helpers only, alternating with the meat supply. Other little business enterprises are carried on by the lepers. Agriculture, live-stock raising, and dairying, for local use, is carried on by the board. Employment at fair wages is furnished all able and willing to work. None are forced to labor.

Everything necessary for the domiciling, sustenance, clothing, and treatment of these wards is furnished free of cost to the recipients by the Territorial government. Excepting the officiating clergymen and one brother, who for reasons of his own refuses to accept anything save subsistence, the board of health pays moderate salaries to all persons engaged in the work of the homes. Relatives are allowed, by special permit, to visit the settlement for a stay of several days by entering a new and attractive visitors' house, which is arranged for complete segregation and interview facilities, and where they may see and converse with their leper friends. As the lepers have the franchise, are voters, and take much interest in politics, political speakers, at election times, visit and address them from the segregated visitors' inclosure.

Leprosy has various physical manifestations; is usually slow in progress, and in many cases leaves the person vigorous and capable of the usual exertion incident to labor and sports. The medical treatment of specific leprosy has been more or less intermittent from the fact that facilities have been lacking for hospital detention and discipline, and from the fact that the sufferers have not been inclined to submit to restraint or persevere in medication. The work of the resident physician, in caring for general health and relieving the oppression of the disease, has been unremitting and arduous, so much so that an assistant physician is now resident.

It is hoped, with the renewed interest of the United States Government and the Territorial board of health, many will conclude to perseveringly submit to necessary hospital conditions and treatment, that the disease may be better understood and a cure sought. Hope is not denied to those sent to Molokai, for, where the evidence justifies, reexaminations are held, and, if the subjects are found free from the bacilli, liberty is restored. And here comes the strange fact that for a number of years not one single person so freed has been willing to accept liberty and leave the settlement. Yet this fact is not so very strange. Here is a village possessing public and private comforts and utilities vouchsafed to few villages of 1,000 inhabitants; that has much that is pleasing and attractive in the village itself, as well as the influence of a fine climate and superb scenery. While the living is simple, the Territorial government provides ample homes, food, clothing, attendance, and medical care free of cost.

Notwithstanding leprosy is a dread disease, it is doubtful if a more generally contented community exists, or one in which security and freedom from apprehension of future want so pervades the people. Happiness and enjoyment prevail to a surprising extent.

Leprosy rarely attacks white races. Lepers, usually early conscious of their trouble, withdraw from public notice and soon find their way to the settlement on the rather remote and sparsely populated island of Molokai; hence neither residents of the Territory nor travelers have any grounds for apprehension of a meeting or of contact with lepers.

The Territory of Hawaii is entitled to the admiration of the civilized world, for it most willingly bears the burden of this one disease at a cost which would relatively cause the mainland of the United States, if similarly afflicted, to care for 532,513 persons at an annual expenditure of \$72,278,458.

FOREST RESERVES.

[By RALPH S. HOSMER.]

During the year six additional forest reserves, with a gross area of 229,619 acres, have been declared as follows: In the Hilo district, Hawaii, 110,000 acres; in the Koolau district, Maui, 42,969 acres; in the Halelea district, Kauai, 37,500 acres; in the Puna district, Kauai, 9,935 acres; in the Ewa district, Oahu, 28,550 acres, and in the Kona district, Hawaii, 665 acres.

The total area of all the forest reserves in Hawaii was, on June 30, 1906, 249,472 acres, of which 69,566 acres of government land had been actually set apart.

Reserve projects in the districts of Kau, Hawaii; Hana, Maui, and Waianae, Oahu, a total gross area of 87,675 acres, were ready to be acted on early in the summer of 1906, while the field work in connection with other proposed reserves was well in hand.

FOREST EXTENSION.

In December, 1905, a circular was issued by the division of forestry offering advice and assistance to individuals or corporations desiring to plant trees. Upon request, a member of the staff visited the land and from an examination on the ground drew up a planting plan embodying practical directions as to what kinds of trees are best adapted for the needs of the applicant, and how the planting should be done to secure the best results. Numerous applications have been received and the greater part of the time of the forest nurseryman is now taken up with this branch of the work.

In connection with the offer to cooperate with the private owner in tree planting and other forest work, the division of forestry keeps on hand seed and seedlings of the more important trees. These are sold to the public at prices just covering the cost of collection or growing.

FOREST-FIRE LAW.

In accordance with the forest-fire law past by the last legislature, forest-fire wardens have been appointed under the board for the various districts in the Territory. Cloth fire-warning notices calling attention to the provisions of the law and warning persons against the careless use of fire have been printed and generally posted on each island. By these means it is hoped that much may be done to prevent forest fires in the future.

EXPERIMENTS WITH RUBBER.

To determine the condition necessary for the best development of rubber trees and to ascertain in what localities in the Territory the trees grow well, lots of the seed of the Ceara rubber tree have been sent out to a carefully selected list of persons on each island, who have

agreed to plant and care for the trees and to report on their condition from time to time. These local experiment stations include a variety of elevations, exposures, and aspects. The resulting notes when compiled should be of no small value to persons desiring to grow rubber in the Territory.

The prospects for raising rubber on a commercial scale and at a profit have during the last year grown more and more bright. Three companies have been organized on the island of Maui, and each one has established a plantation on the windward side of the island. It is understood that one or more additional companies are projected. While the rubber industry in Hawaii has as yet hardly past the experimental stage the present indications all point to its presently becoming a decided success.

KOA LUMBER INDUSTRY.

One of the most encouraging features in the forest outlook is the organization of a company to lumber koa on the island of Hawaii. Koa, which will be put on the mainland market under the name of "Hawaiian mahogany," is the best of the native Hawaiian timbers; it is a heavy, hard cabinet wood, beautiful in grain, and susceptible of high polish. The establishment of the Hawaiian Mahogany Company (Limited) marks the beginning of systematic lumbering in the Territory, and is to be welcomed as adding an industry of much promise.

FORESTRY IN GENERAL.

Among other points of forest interest during the past year, the celebration on November 3, 1905, of the first Arbor Day to be officially noted in this Territory may be mentioned. The day was generally observed, both in schools and by the public as a whole, a fact which may be taken as an index of the feeling that exists in the Territory in regard to forest matters.

DEPARTMENT OF PUBLIC WORKS.

[By C. S. HOLLOWAY.]

It would seem advisable at this time to call attention to the adoption, at the last session of the legislature, of a revised compilation of the territorial statutes, which materially affects the duties and scope of this office. This new act became operative on the 27th day of February, 1905.

Prior to 1895, the minister of the interior, now the superintendent of public works, had entire control of all government lands, with power to dispose of them by sale or exchange, subject to the approval of the King under the monarchical form of government, and of the executive council under the Republic of Hawaii.

At that time the law now known as the "Land act of 1895" was past by the legislature, which provided for the appointment of a board of three commissioners, one to be the minister of the interior, to have control of what were to be known as "public lands." From these were excepted town lots, sites of public buildings, land used for public purposes, roads, streets, landings, nurseries, tracts reserved for forest growth and conservation of water supply, parks, and all

lands which may hereafter be used for public purposes, these remaining under the care and management of the minister of the interior.

By the joint resolution of Congress under which the Republic of Hawaii was annexed to the United States, and the organic act under which a form of government was provided for the Territory of Hawaii, these land laws were continued in force and effect until such time as they should be amended by act of Congress.

Among other changes provided for by the organic act was the substitution of the words "commissioner of public lands" for "minister of the interior" and "agent of public lands and commissioner of public lands" in that portion of the laws relating to "public lands." From that time until the adoption of the Revised Laws of the Territory by the legislature at its session last year all patents were signed by the governor and countersigned by the commissioner of public lands. The new compilation, however, provides that where lands under the control of the superintendent of public works are sold by him, patents are to be signed by the governor and countersigned by the superintendent of public works. This interpretation of the laws was tested recently in the supreme court of the Territory and confirmed by a unanimous decision. It is possible that some confusion may result by thus placing the power to dispose of government lands under two departments. There will probably be a duplication of land-patent numbers, altho patents issued from this office are all marked "Patent No. —, Department of Public Works," to distinguish them from patents issued by the commissioner of public lands.

No important land transactions have been effected by this department during the past year. The leases on several of the esplanade or water front lots in Honolulu have expired, but there have been no applications for further leases of this land. This is no doubt due to the fact that formerly most of these lots were used for storage of coal arriving here for the plantations. Now nearly all of the power stations have substituted oil for fuel. Storage tanks have been erected by private interests some distance from the business section of the city. No doubt, upon the completion of the new government wharves, there will be a greater demand for these water front lots on account of their favorable location as sites for warehouses.

SITE FOR PUBLIC BUILDING, HILO.

Congress has recently set aside one of the principal business blocks in Hilo, formerly under the control of this department, as a site for a Federal building. One-half of this property is under a lease which will expire in 1913, and on the remaining portion of the land are situated the offices occupied by various territorial departments, as well as several buildings which are rented for business purposes. No definite action has been taken as to the improvement of this property, altho, by a resolution of Congress, all money received from the sales of buildings located on the land is to be used by the superintendent of public works of the territory in grading and parking the lot.

Certain additions to the territorial waterworks system have made it possible to open up a tract of land for homesteads or residence purposes in Makiki Valley, Honolulu, this land being at present

reserved for a watershed. It is my intention to transfer such portion of the land as is no longer required for the protection of the water supply to the commissioner of public lands as soon as the surveys are completed, and the public will then have an opportunity of purchasing the property after it has been divided into homestead or building lots.

COUNTY ACT.

The act creating counties in the Territory of Hawaii and providing for the government thereof, as past at the last session of the legislature and taking effect on July 1, 1905, materially modified the powers and scope of this department. Formerly the construction, maintenance, and repairs of all roads and bridges on the various islands were under the direct charge and control of the superintendent of public works. The laws provided that he should appoint road boards for each district, consisting of three members who served in an honorary capacity without pay, this appointing power vesting in the governor after the passage of the organic act. These boards had authority to expend the road taxes collected for each district, which were held as special deposits by the treasurer of the Territory. All road tax funds were paid out by draft on the superintendent of public works, upon the order of the chairman and one other member of the road board, and all vouchers were filed in the department of public works.

Current appropriations as made by the legislature were expended by the superintendent of public works, generally under the direct supervision of the road boards, altho on large construction work contracts were usually made by the superintendent of public works, and inspectors were appointed who reported directly to this office.

The legislature provided in the county act that each county should have power to open, construct, maintain, and close up public streets, highways, roads, alleys, trails, and bridges within its boundaries, and as no territorial appropriation was past at the last session for repairs during the present biennial period, it was unquestionably the intention to assign the duties formerly exercised by the superintendent of public works to the board of supervisors of each county in the maintenance of roads in the Territory. All of the road machinery, tools, and live stock belonging to the Territory were turned over to the supervisors of each county in which the property was located, and receipts were signed by the supervisors containing an agreement on their part to return the property at any time, upon demand being made by the Territory. The commissions of the road board members under territorial appointment have been canceled where the road taxes deposited prior to the taking effect of the county act have been expended, inasmuch as under the county form of government they have no further duties to perform.

The legislature limited the powers of the counties in the construction of new streets, highways, and bridges, by providing that the location, grade, method of, and material to be used in the construction of the same shall first be approved by the superintendent of public works.

The supervisors are considerably handicapped in the acquiring of rights of way for new roads, having no authority similar to that held by the superintendent of public works to exercise the powers of eminent domain.

At this time I beg to call attention to the imperfect records in this office of the titles held by the government for rights of way acquired by purchase, condemnation proceedings, and exchange. Especially in the outer districts, I find that many of the roads have been constructed thru private property with apparently no record of the consent of the owner or deed of the right of way. Persons are continually applying to this office for a settlement on account of land taken for road purposes during former periods, but of course no redress can be obtained except thru action of the legislature.

The county supervisors have attempted very little new construction work, using the available funds in the maintenance of roads formerly built by the Territory.

Numerous appropriations were made by the last legislature for the construction of new roads on the various islands from funds to be secured by the sale of Territorial bonds, but these highways are strictly in the line of county improvements, and it was not to be expected that the Territory would further burden itself by increased indebtedness in order to take up this work. It is, I understand, the custom on the mainland to construct what are known as "State highways" thru several counties by the expenditure of State and Territorial funds, these roads upon completion being maintained by the counties benefited. Here, however, all of the counties are separated by water, so that a road built on one of the islands would not be of value to the Territory at large, or tend in any way to facilitate transportation between the various counties.

GOVERNMENT BUILDINGS.

The Territorial appropriations for the construction of government buildings, including schools and court-houses, are expended under the direction of the superintendent of public works.

The building located in the capitol grounds and designed for the storing of the government archives, work on which commenced in 1905, is completed and will be occupied immediately. This building, which is constructed of monolithic concrete foundations and brick walls with cement finish, contains one large room which is entirely fireproof, thus affording safe protection for the storing of government documents. In addition are reference and meeting rooms, also an office for the archivist.

The Territory is in great need of similar fireproof structures for the land, conveyance, and survey offices, as the buildings occupied by these departments are in no way suited for the filing of such valuable government documents and records which, in case of destruction, it would be impossible to replace.

In Hilo a new jail building has recently been built. The foundations are of concrete with brick walls plastered with cement. After a careful consideration of the various sites available for this structure it was decided to locate it about 1 mile above the center of the town, where the government quarries are situated. The prisoners are worked in the quarries and the rock is used in the construction of government roads. Unfortunately the appropriation made by the legislature was not sufficient to cover the cost of the building as originally designed, and it was therefore found necessary to reduce the size. In the future, if additional money be available, the wings

containing the cells can be extended so that when finally completed, in accordance with the original plans, it will be of sufficient size to afford ample accommodations for many years to come. This jail is used for the confinement of Territorial prisoners as well as prisoners held prior to trial under the county laws.

SCHOOL BUILDINGS.

The following schoolhouses and teacher's cottages have been constructed during the past year on the various islands of this group:

Oahu.—Normal School, Kahuku School, Waiialua School.

Hawaii.—Schoolhouse and teacher's cottage, Keehia; schoolhouse and teacher's cottage, Puuanahulu; Papaikou School; Mountain View School; Makapala School; schoolhouse, 12 miles, Olaa; teacher's cottage, Kona-waena.

Kauai.—Koloa School; teacher's cottage, Hanalei; Hanamaulu School.

*Mau*i.—Honokohau School; Kahukuloa School; Puunene School; teacher's cottage, Wailuku.

The large increase in the number of children attending school, as given by the report of the superintendent of public instruction, shows clearly the necessity of these new buildings.

The legislature made appropriations for a high school in the city of Hilo, and this building is now well under way and should be ready for occupancy about the first of next year.

WHARVES.

The construction of the new slips and wharves for Honolulu, which commenced in 1905, has been progressing satisfactorily, the excavation of the first slip having been completed. This slip has a width of 200 feet, a minimum depth of 34 feet, and a total length of 610 feet. It was deemed advisable to dredge one-half of the second slip before completing the wharves, as it would be a difficult matter to take out the hard coral formation immediately adjoining the wharf without serious damage to the concrete sea wall, piles, and wharf structure.

The dredging of the second slip will be completed in about two months' time, and tenders have already been called for covering the construction of the large wharf between the two slips which will have a width of 140 feet and a length of 610 feet.

At McGregors Landing, on the island of Maui, a new wharf was completed some time ago, and the approach from the main government road to the wharf is now being built. This landing will take the place of the one at present in use at Maalaea Bay, and will afford much better protection on account of its favorable location.

With the exception of the wharves at Honolulu and Hilo, there are no facilities for berthing steamers in the interisland trade, all passengers and freight being landed in shore boats carried on the decks of steamers. At many of the landings the steamers are obliged to anchor at a considerable distance from shore. In rough weather it is impossible to use these landings, and except under ordinary conditions the transportation of passengers and freight to and from the steamers is attended with considerable risk.

No wharfage or landing charges are levied by the government except on the wharves in Honolulu and Hilo, altho in cases where the plantation companies and other private interests have provided machinery for the handling of freight, and warehouses for storage purposes, the right is given under the Territorial laws to collect reasonable fees from the public using such facilities.

The Federal Government is at the present time dredging the Honolulu Harbor and channel entrance, and upon the completion of this work present conditions will be greatly improved. Large freight and passenger steamers are rapidly replacing the old boats of moderate draft, and such steamers as the *Manchuria*, *Mongolia*, *Korea*, and *Siberia* are now handled with difficulty on account of lack of sufficient depth in portions of the harbor. When heavily loaded they are obliged to berth at the United States naval wharves, which are located near the channel entrance.

HONOLULU WATERWORKS.

In August, 1905, construction was started upon the most important improvement yet undertaken in connection with the work of this department, viz, that of the large Nuuanu dam and reservoir. This dam, when finished, will be 1,750 feet in length, with a storage capacity behind it of approximately 450,000,000 gallons of water. It is found from diagrams, in the preparation of which the assumptions made in making the computations were kept within conservative lines, that with this reservoir and the lower or No. 1 reservoir improved so as to contain when full 50,000,000 gallons, the yield would have furnished a continuous flow, with but two exceptionally dry periods, of at least 5,250,000 gallons per twenty-four hours thruout the last fifteen years (this being the period covered by the rain records), or about 50 per cent of the entire consumption of Honolulu. That it is extremely important that this work in the Nuuanu Valley be completed as soon as possible is unquestioned, because several times during the last year the present system of reservoirs was drawn down so low that had it not been for frequent showers during these last summer months, we could not possibly have furnished water to all consumers on the upper levels. The average consumption from the Nuuanu source during the last two years has been approximately 35 per cent of the entire consumption, or nearly 3,500,000 gallons daily. During February, March, and April of this year the average flow into the Nuuanu system was approximately 1,500,000 gallons daily. This present system has a storage capacity of only about 35,000,000 gallons. It is readily seen, therefore, that the supply from this source is entirely inadequate to meet the demands, and inasmuch as our pumps can not force water to consumers on the higher levels, we are at any time liable to be in a position where we can not supply our consumers on the high-pressure system. With the completion of this large reservoir and dam now under construction such conditions will be entirely overcome, and the pumps which are now being run a greater portion of the time to their full capacity will be relieved to a great extent.

The new electric-light station at No. 1 reservoir was completed in the first half of the present period, and in December last it was connected with the present system by laying approximately 300 feet

of 18-inch cast-iron pipe from the station to the old 15-inch effluent main from the two upper reservoirs.

An important thru connection was made at the latter end of this period from the lower end of the 12-inch main on Nuuanu avenue, at the corner of Judd street, by laying approximately 3,700 feet of 12-inch cast-iron pipe thru Judd street across the Nuuanu stream down Fort street extension to the 12-inch main at the corner of School street.

The steel force main leading from the Kaimuki pumping station out to and along the Kapahulu road has recently been replaced by cast iron, as the steel was commencing to show signs of rapid deterioration. From this new force main a branch line of 12-inch cast iron has been laid along the Kapahulu road to the Waialae road, connecting with an 8-inch main from what was the end of the main on Beretania street, opposite the Kamoiliili Church, along Beretania street and the Waialae road to the Kaimuki Zoo, a distance of about 7,600 feet. The water may now be forced up the Kapahulu and Waialae roads at the time it is being pumped to the Kaimuki reservoir main. By connecting the end of the pipe on Beretania street the Kaimuki and Beretania street pumps may work interchangeably into either the Beretania or Kaimuki districts.

An extensive improvement, one which will be of benefit not only in dry weather, but during the rainy seasons, has been planned for installation in the Makiki Valley, and the construction work was well under way at the close of this period. An excellent site for a reservoir was selected in a rocky basin directly below the waterfall. This basin will have a storage capacity of approximately 600,000 gallons, after completing the construction of a short dam with a spillway only 20 feet above the stream. A 12-inch and 8-inch effluent main, the greater portion of which has already been laid, is to connect this reservoir direct with the high-pressure system at the extreme upper end of Keeaumoku street. The average minimum daily flow, determined during an unusually dry spell, from this source has been found to be 350,000 gallons, which amount will help out materially the Nuuanu supply to the consumers on the higher levels. In addition to connecting this supply direct to the high-pressure system of distribution, a Y branch has been placed at the present reservoir site, and it is planned to lay from this branch a short line into the boiler house for a nozzle discharge upon a Pelton motor operating a centrifugal pump. This pump is to be placed at the bottom of the present artesian-well shaft, superseding the present three-plunger pump, which has proved a most costly machine to operate. When there is plenty of water in the valleys and the water not needed in the higher pressure system, this supply will be used to drive the motor and pump which, with the minimum flow thru the nozzle, will raise from the artesian well into the present reservoir approximately 1,000,000 gallons per twenty-four hours. This quantity, together with that passing thru the water wheel means an additional supply of from 1,000,000 to 2,000,000 gallons daily, which would relieve the Beretania pump very considerably and make a proportionate saving in the cost of fuel. When once installed this plant will cost practically nothing to operate and maintain, and will no doubt repay its moderate first cost within a year's time.

The installation of a complete oil-burning apparatus at the Bere-tania pumping station has resulted in a saving of about 10 per cent in the cost of fuel. Taking the last four months in which coal was used for fuel and the price paid per ton, the average cost for pumping per million foot-pounds was \$0.0058, while that of the last four months, using oil, was \$0.005225, thereby showing a saving of approximately 10 per cent.

During this period in particular full, complete, and detailed records of all work undertaken by this department have been kept and placed on file in this office. These records show the nature of work done, as well as the location and cost thereof. A system of card indexing the services has been started and already has been the means of saving a great deal of inconvenience. For each service there is a separate card, giving the size and location of both tap and service pipe, besides other data frequently referred to.

This year for the first time lines and grades have been established for the laying of water mains, and such measurements of mains and service pipe extensions and their appurtenances have been taken, so that they can be properly located and platted.

Short stretches of 6-inch cast-iron water pipe have been laid in different localities, extending over 2,700 feet in all. Numerous extensions of small-sized water pipe, under 4 inches in diameter, have been made, besides the installation of 17 new fire hydrants and about 200 additional services.

The above-mentioned subjects cover all of the larger and more important improvements made during this last period, the remainder of the work being along the line of repairs in connection with the general maintenance.

HILO WATERWORKS.

Water is supplied to the city of Hilo from a gravity system, with a distributing reservoir of about 800,000 gallons capacity, located about 1 mile from the business center. The height of this reservoir is sufficient to provide ample pressure for fire purposes without the aid of steam fire engines.

Last year the board of health called attention to the possibility of pollution of the water, owing to the condition of the water head, which was covered with a mass of vegetable growth and was not properly fenced to prevent cattle from drinking in the stream. Immediate attention was given to this matter, and a concrete conduit was built from the head source to the reservoir. By covering this the growth of algæ, which had formerly given considerable trouble, was prevented.

Several extensions of the mains have been installed, and the Hilo system is in good condition with the exception of one or two lines of pipe which have been in use for a good many years.

LAHAINA WATERWORKS.

At Lahaina the government has recently acquired by purchase from the Pioneer Mill Company the fee-simple title to 500,000 gallons of water every twenty-four hours from the valley of Kanaha, the deed containing the proviso that should at any time the water in this valley disappear the Territory would have the right to use any

other water controlled by this company. Prior to the purchase of this water the town of Lahaina was supplied from water under the control of the Lahainaluna School, but this water not being sufficient to supply the school needs and that of the town as well it was found necessary to acquire an additional supply. This water is delivered to Lahaina by gravity, the pressure being sufficient for fire purposes.

WAILUKU AND KAHULUI WATERWORKS

The towns of Wailuku and Kahului are supplied from a mountain stream flowing in Iao Valley, with a distributing reservoir about $1\frac{1}{2}$ miles outside of the town of Wailuku. Until recently the system has met all requirements, but quite a settlement has now sprung up at Kahului, so that the pipe supplying this portion of the system is insufficient to carry the water required. It is proposed to increase the size of this pipe and also construct an additional distributing reservoir between Kahului and Wailuku, so that there will be a sufficient pressure at all times on this line.

LAUPAHOEHOE WATERWORKS.

At Laupahoehoe the Territory maintains a gravity system, water being obtained from one of the mountain streams rising on government lands. A small distributing basin of concrete was constructed during the past year to replace an old wooden tank formerly used for the same purpose.

The source from which the town is supplied furnishes water largely in excess of the quantity used for domestic purposes and, as the intake basin is at a considerable elevation above the town, it would be quite feasible to develop a considerable amount of power which could be used for lighting or other purposes. Several applications have been received for the privilege of using this surplus water, but no definite action has as yet been taken.

WAIMEA WATERWORKS, KAUAI.

Several years ago the Territory purchased the water system at Waimea, and since that time has supplied the town. The water is taken from a ditch belonging to the Waimea Sugar Company, and during periods of excessive rainfall it becomes very dirty, as no provisions have been made for settlement. On account of the low pressure and small main from this ditch it is impossible to furnish sufficient water for the use of the town, and plans are now being prepared which will provide for new mains of larger diameter and a settling basin immediately below the ditch which will act as a distributing reservoir as well as a filtration plant.

KOLOA WATERWORKS.

The Territory also supplies water to the town of Koloa from a gravity system, but no extensions or additions have been made during the past year.

SEWERAGE SYSTEM, HONOLULU.

During the year ended June 30, 1906, approximately 4,376 linear feet of 8-inch and 6-inch sanitary sewer mains and 608 linear feet of 6-inch house sewers have been laid. Of this total length, 2,633 feet

were put in by contract and 2,351 feet by day labor. Some 2,700 linear feet of sewer mains are now under construction. With the proposed extensions in section 2 and the Kalihi district, the surveys and plans for which are all practically completed, we will add to the sanitary system, beyond what it was at the beginning of this last period, over 1,600 feet of 8-inch and 6-inch, besides 7,080 feet of 10-inch, 16-inch, and 24-inch main sewer and 3,200 feet of 6-inch side sewers.

With the completion of the above extensions the most insanitary sections remaining in Honolulu will have been relieved. The work completed and proposed in section 2 will do away with some 275 cesspools and vaults at present made use of by 1,400 persons living in 265 buildings. The building of the proposed Kalihi trunk line sewer will relieve the insanitary conditions of about 90 buildings, including the Kalihi Receiving Station, Kamehameha schools, and a number of large stores and dwellings. The occupants of these buildings number approximately 550. Some 70 cesspools and vaults will be done away with when this improvement is completed. It is claimed by the board of health that, due to the existence of these cesspools and vaults, they found the direct cause of numerous cases of typhoid and other contagious diseases.

The present engines and pumps at the sewerage pumping station have become so badly worn and in such generally poor repair that at the end of this last period it became absolutely necessary to arrange for a new pump. Specifications were therefore prepared for furnishing a new 15-inch centrifugal pump directly connected to a high-pressure steam engine. This pump will be of ample capacity to discharge nearly double the present flow. Tenders were received and a contract awarded which calls for complete delivery not later than October 10 next. The logs at the pumping station show that approximately 965 tons of coal were burned during the last year and 2,050,560,000 gallons of sewerage were pumped. This means an average of 5,500,000 gallons daily, which is an increase of over 20 per cent over and above that of the year before. During times of extreme high tide and increased water pressure the quantity of sewerage which it is necessary to pump is very materially increased. The records show that, due to leakage and increased flow from flush tanks and defective house fixtures, the pumps frequently have to take care of as much as 3,000,000 gallons per twenty-four hours over and above the average flow under normal conditions.

In the maintenance of this sanitary system of sewers we now have the upkeep of over 52 miles of piping and approximately 1,800 house connections.

No construction work whatever other than the regular work of maintaining the storm sewerage system has been done under the supervision of the Territory during this present period. Early in the year 1906 the upkeep and maintenance of this system was turned over to the county of Oahu.

SEWERAGE SYSTEM, HILO.

The contract for the construction of a system of sewers at Hilo has recently been completed and connections are now being made. It is the opinion of the board of health that the sanitary condition of Hilo will be greatly improved by the installation of this system, and in

time it should bring in a considerable revenue to the Territory. At present there is no law providing for the collection of sewer rates for the city of Hilo, but undoubtedly the next legislature will pass a law similar to the one applying to the city of Honolulu, which provides for the collection of sewer rates, charges being fixed so that sufficient money for the maintenance of the system, as well as a fair rate of interest on the money invested, will be received by the Territory.

FRANCHISES.

The Koolau Railway Company, recently incorporated under the laws of the Territory of Hawaii, has made application for the right to construct a railway in the district of Koolau, island of Oahu. The Territorial statute, known as the "railway act," gives the power to the superintendent of public works to enter into a contract with railway corporations whereby the right of eminent domain is given for the acquiring of private rights of way, and on government property the necessary land for the roadbed is given without charge, with the understanding that it will revert to the government if its use for railway purposes is abandoned. A contract of this nature was made with the Koolau Railway Company, and the construction of their road has been under way for some time. It commences at the terminal of the Oahu Railway at Kahuku and runs along the windward side of this island for a distance of about 20 miles. Further extensions may be made in the future, so that there is a possibility of a railway entering the city of Honolulu from this side of the island.

FINANCES.

[By A. J. CAMPBELL.]

In the treasurer's report of last year there were cited several changes made in the laws by the 1905 legislature, then just adjourned, the principal among which was the making of all property and income taxes payable in two installments, one-half in May and one-half in November, instead of all in November. As a result of this change there has been collected in this fiscal period approximately \$665,000 taxes, which otherwise would have been collected after June 30, 1906, and which consequently makes the receipts unusually large this year. Even after this amount (\$665,000) is deducted from the total receipts, \$3,320,998.90, there remains \$2,655,998.90, which is \$301,185.88 larger than the previous year's receipts, and is mostly due to increased collections in the different tax offices of the Territory. As a consequence, while the previous year closed with outstanding registered warrants amounting to \$636,039.20 and \$59,408.49 cash on hand, this year closed with \$72,227.96 outstanding warrants and \$335,331.37 cash on hand. During both years the Territory lived within its income, but was forced to register warrants, awaiting the time of general collection of taxes in November to pay them, and even during this year \$16,005.07 was expended in interest on previously registered warrants, prior to the receipt of sufficient cash to pay them. However, since November 1905, all warrants have been promptly paid upon presentation at the treasury, and a return to the necessity of registering warrants seems very improbable.

Revenue for the year ended June 30, 1906.

CURRENT RECEIPTS.

Licenses.....	\$136,944.54
Revenue stamps.....	30,199.50
Corporations and copartnerships.....	7,014.20
Inheritance tax.....	5,879.69
Insurance tax and filing fees.....	10,788.61
Fifth-class liquor seals.....	6,788.20
Accrued interest on bonds.....	2,401.38
Real property tax.....	961,433.76
Personal property tax.....	928,841.53
Carriages, carts, and dray tax.....	42,267.00
Road tax.....	97,582.00
School tax.....	97,582.00
Poll tax.....	48,791.00
Dog tax and dog tags.....	5,579.60
Bicycle tags.....	143.10
Penalties and costs tax account.....	12,940.02
Income tax.....	392,130.22
Bureau of conveyances.....	13,099.25
Land registration court.....	1,439.44
Rents, public works.....	39,578.80
Sewerage.....	17,501.99
Market.....	228.90
Weights and measures.....	115.75
Land sales, public works.....	12,343.70
Waterworks.....	131,921.68
Wharfage, Honolulu.....	31,597.82
Pilotage, Honolulu.....	26,299.35
Wharfage and pilotage, other islands.....	4,517.62
Kerosene storage.....	4,276.46
Powder storage.....	1,349.50
Bureau of health.....	30,874.24
Judiciary department.....	53,230.63
Agriculture and forestry.....	298.85
Survey.....	575.15
Land sales, public lands.....	22,628.15
Land revenue, public lands.....	116,679.38
Department of public instruction.....	6,371.30
Secretary of the Territory.....	1,825.50
Auditing department.....	276.27
Miscellaneous realizations.....	16,662.82
Total.....	3,320,998.90
Cash balance July 1, 1905.....	59,408.49
Total.....	3,380,407.39

DISBURSEMENTS.

Outstanding warrants July 1, 1905, legislative and those drawn by the auditor.....	\$636,039.28
Departmental expenses July 1, 1905, to June 30, 1906, being the amount of warrants drawn by the auditing department for current expenses.....	1,261,989.18
Expenses legislature, 1905, warrants drawn.....	7,898.97
Payments to county of—	
Oahu.....	530,970.47
Hawaii.....	150,190.10
Maui.....	107,208.19
Kauai.....	77,292.88
Interest on registered treasury warrants:	
County.....	1,799.77
General.....	14,205.30
Interest on bond debt.....	167,832.69

Transferred to road tax, special deposit.....	\$139,849.00	
Transferred to land sales, special deposit.....	22,028.15	
		<u>\$3,117,303.98</u>
		263,103.41
Outstanding warrants July 1, 1906.....		<u>72,227.96</u>
Cash balance July 1, 1906.....		335,331.37

RÉSUMÉ.

Outstanding warrants July 1, 1905.....	\$636,039.28
Less cash on hand July 1, 1905.....	59,408.49
	<u>576,630.79</u>
Net floating debt July 1, 1905.....	
Cash on hand July 1, 1906.....	325,331.37
Less outstanding warrants.....	<u>72,227.96</u>
Net cash, without any floating debt.....	263,103.41

During the fiscal period ended June 30, 1905, the current receipts of the Territory exceeded the disbursements by \$86,849.91, which was in marked contrast to the previous year, when the disbursements exceeded receipts by \$495,948.91. Again I am pleased to note that, after making the proper allowance for purposes of comparison, the current receipts of the period just ended exceed the obligations incurred by approximately \$175,000.

BONDED DEBT.

The bonded debt of the Territory on June 30, 1905, was \$3,137,000. During the year this was further increased by the sale of 600 4-per cent \$1,000 refunding bonds and 750 3½-per cent \$1,000 public improvement bonds, series 1905-6, and decreased by the payment of 5 per cent bonds to the amount of \$626,000, leaving a total bonded indebtedness June 30, 1906, of \$3,861,000. A detailed statement of all the bonds outstanding on July 1, 1906, is as follows:

Loan act June 13, 1896. Issued by authority of an act of the legislature of the Republic of Hawaii, approved June 13, 1896; interest at 5 per cent per annum, payable semiannually; bonds redeemable in five years and payable in twenty years from July 1, 1896.....	\$196,000
Fire-claim bonds. Issued by an act of Congress approved January 26, 1905; interest at 4 per cent per annum, payable semiannually; bonds redeemable in five years and payable in fifteen years from May 1, 1903.....	a 315,000
Public improvement 4½-per cent bonds, series 1903-4. Issued by authority of an act of the legislature of the Territory of Hawaii, approved April 25, 1903, and approved by the President of the United States; interest payable semiannually; bonds redeemable in five years and payable in fifteen years from October 1, 1903.....	b 1,000,000
Public improvement 4½-per cent bonds, series 1904-5. Issued by authority of an act of the legislature of the Territory of Hawaii, approved April 25, 1903, and an act approved July 11, 1903, and approved by the President of the United States; interest payable semiannually; bonds redeemable in five years and payable in fifteen years from January 2, 1905.....	b 1,000,000
Refunding bond of 1905, bearing 4 per cent interest. Issued by authority of an act of the legislature of the Territory of Hawaii, approved April 25, 1903, and approved by the President of the United States; interest payable semiannually; bonds redeemable in five years and payable in fifteen years from October 4, 1905.....	600,000

a Total authorized issue, \$326,000; total required and issued, \$315,000.

b Total authorized issue (to be approved by the President of the United States), \$5,000,000.

Public improvement 3½-per cent bonds, series 1905-6. Issued by authority of an act of the legislature of the Territory of Hawaii, approved April 25, 1903, and an act approved July 11, 1903, and approved by the President of the United States; interest payable semiannually; bonds redeemable in five years and payable in fifteen years from January 2, 1906 ^a\$750,000

3,861,000

The 4 per cent refunding bonds were sold in Honolulu at 101½, or a 3.70 basis, and the 3½ per cent public improvement bonds were sold in New York at 98½, or a 3.66 basis. This latter sale was made at a time when money was exceedingly high, otherwise a better figure could have been obtained, and shows that the Territory's credit in the bond markets of the mainland is good.

Money derived from the sale of bonds is used only for permanent improvements, and not for current expenses. The following table shows the loan fund transactions during this period:

Loan cash on hand July 1, 1905..... \$653,491.18

RECEIPTS.

Sale of refunding 4 per cent bonds.....	\$608,250.00	
Sale of public improvement 3½ per cent bonds, 1905-6 series.....	735,937.50	
		1,344,187.50
Total.....		1,997,678.68

DISBURSEMENTS.

Republic of Hawaii 5 per cent bonds, loan act June 13, 1896, refunded.....	\$608,250.00	
Loan warrants paid.....	583,029.12	
		1,191,279.12
Loan cash balance June 30, 1906.....		806,399.56

BUREAU OF TAXES.

The assessable value of real and personal property in the Territory on January 1, 1904, was \$123,898,504. On January 1, 1905, it was \$133,924,100, and on January 1, 1906, it was \$131,175,015, divided as follows:

Taxation division.	Real property.	Personal property.	Total.
1. County of Oahu.....	\$31,640,862	\$36,792,873	\$68,433,735
2. County of Maui.....	13,751,567	7,375,191	21,126,758
3. County of Hawaii.....	14,948,462	12,036,906	26,985,368
4. County of Kauai.....	6,567,446	8,061,708	14,629,154
Total.....	66,908,337	64,266,678	131,175,015

The assessable value of this year is less than last year by nearly \$3,000,000, but is still far in excess of the year 1904. Besides the 1 per cent tax on the assessed value, the income, personal, and specific taxes increased the revenue collected thru this department.

The taxes collected during the year ended June 30, 1906, amounted to \$2,587,290.23, which was \$961,214.73 more than the collections of the twelve months previous; but, as already stated, \$665,000 of this amount was due to the change made in the time and manner of collecting the same. The total cost of assessing and collecting these

^a Total authorized issue (to be approved by the President of the United States) \$5,000,000.

taxes, including costs of all stationery and materials, was \$73,350.92, or 2.83 per cent of the amount collected. The following table shows the taxes collected for each fiscal year since annexation:

Year.	General tax.	Income tax.	Total.
1900-1901.....	\$1,215,325.91		\$1,215,325.91
1901-2.....	1,370,740.29	\$287,366.80	1,658,107.09
1902-3.....	1,445,926.35	205,096.77	1,651,023.12
1903-4.....	1,508,657.33	172,542.16	1,681,199.49
1904-5.....	1,460,017.99	157,057.98	1,626,075.97
1905-6.....	a 2,195,160.01	a 392,130.22	a 2,587,290.23

a For purposes of comparison \$1,922,290.23 should be used instead of \$2,587,290.23, \$322,764 instead of \$392,130.22, and \$1,599,526 instead of \$2,195,160.01.

BUREAU OF CONVEYANCES.

During the year the work of this office has progressed favorably, and 3,526 documents were recorded. The collections for the year ended June 30, 1906, were \$13,099.25, as against \$13,926 the previous year, and the expenses of the office were 76½ per cent of the collections, or \$10,576.25, as against the previous year's 57¾ per cent, or \$7,850.97. The aim of the office is to give prompt and reliable service, and the receipts are made up mainly of the recording fees.

CORPORATIONS.

During the year 36 new companies were created, either by charter or by articles of association, as follows: Mercantile, 15; agricultural, 9; railways, 3; savings and loan, 2; trust company, 1; eleemosynary, religious, etc., 6; making domestic corporations in force on June 30, 1906, as follows: Mercantile, 360; agricultural, 106; railways, 10; savings and loan, 12; street car, 1; eleemosynary, religious, etc., 121; banks, 3; trust companies, 3; insurance, 1.

In addition to the above 125 foreign corporations are authorized to do business in the Territory, as follows: Mercantile, 16; agricultural, 5; bank, 1; savings and loan, 4; railway, 1; street car, 1; insurance, 97. There are also 4 national banks doing business in the Territory.

Franchises and agreements and the capitalized value of the companies operating under them.

FRANCHISES.

Hawaiian Tramways Company (foreign corporation).....	\$325,000
Franchise granted for thirty years from August 29, 1884, Chapter XXXIV, Session Laws of 1884, reenacted by Chapter XVIII, Session Laws of 1886. Franchise granted for thirty years from September 19, 1886.	
Oahu Railway and Land Company.....	4,000,000
Franchise granted for twenty years from September 11, 1888, Chapter LXII, Session Laws of 1888, reenacted by Chapter XXXI, Session Laws of 1890. Franchise for fifty years from September 15, 1890.	
Hawaiian Electric Light Company (Limited).....	500,000
Franchise granted for ten years from May 23, 1893. New franchise granted by the legislature of the Territory of Hawaii, Session Laws of 1903, approved April 28, 1903, for thirty-five years, and approved by United States Congress, April 21, 1904.	
Honolulu Rapid Transit and Land Company.....	1,150,000
Franchise granted for thirty years by legislature of the Republic of Hawaii, Session Laws of 1898, approved July 7, 1898. Approved by United States Congress, June 25, 1900.	

Honolulu Gas Company (Limited).....	\$200, 000
Franchise granted for thirty-five years by the legislature of the Territory of Hawaii, Session Laws of 1903, approved April 15, 1903, and approved by United States Congress, April 21, 1904.	
Kauai Railway Company.....	10, 000
Franchise granted for thirty years by the legislature of the Territory of Hawaii, Session Laws of 1903, approved April 25, 1903. Not yet approved by Congress.	
Standard Telephone Company (Limited).....	150, 000
Franchise granted for twenty-five years from April 26, 1906, act 66, Session Laws of 1905. Approved by the Congress of the United States June 20, 1906.	

AGREEMENTS.

Mutual Telephone Company.....	\$150, 000
Hilo Electric Company (Limited).....	100, 000
Hilo Railroad Company.....	1, 000, 000
Koolau Railway Company (Limited).....	50, 000
West Hawaii Railway Company.....	100, 000
Kahului Railroad Company.....	75, 000
Kohala Ditch Company (Limited).....	500, 000

While several of the companies operating under agreements or franchises are required to pay to the Territory a small percentage of their receipts, from one only—the Hawaiian Electric Company (Limited)—has the Territory received anything, and this company has, up to June 1, 1906, paid into the Territorial treasury on this account \$25,540.68. The Honolulu Gas Company (Limited), for the term ended June 30, 1906, is indebted to the Territory on account of the 2½ per cent of its gross receipts, \$318.49, and this amount will undoubtedly be paid before it becomes delinquent.

THE ATTORNEY-GENERAL'S DEPARTMENT.

[By E. C. PETERS.]

The attorney-general is required by law, when called upon, to "give advice and counsel to the heads of departments, the high sheriff, sheriffs, magistrates, and other public officers in all matters connected with their public duties, and otherwise aid and assist them in every way requisite to enable them to perform their duties faithfully;" at the same time he is required to "give his opinion on questions of law submitted to him by the governor, the legislature, or the head of any department."

It is also required of the attorney-general that he appear for the Territory, personally or by deputy, in all courts of record, in all civil cases in which the Territory may be a party or be interested, consequently this department is called upon to appear in all cases affecting the Territory or in which it or an officer thereof is a party.

Prior to July 1, 1905, the Territorial system of government differed in but few respects from that under the Republic and its predecessors—the provisional government and monarchy. On the last-named date an act of the legislature went into effect providing for counties, each with its county attorney; but as far as this office is concerned the effect was not materially to lessen its work. County attorneys are authorized to appear before the grand juries and prosecute criminal offenses committed within their respective counties, and they have in most instances diligently performed their duty; but upon this office rests the responsibility of criminal prosecutions, and it has been found necessary to appear at the several terms of the circuit courts of the third and fourth circuits and prosecute felony

cases in the first circuit. During this period there has been seemingly an epidemic of murders, this office having personally conducted no less than 15 murder trials, resulting in 10 convictions in the first degree, 5 of whom have paid the death penalty prescribed by law for their offense, and 5 in the second degree. Assistance given this department by county attorneys has been of great value, permitting closer application to the civil litigation.

During this period, among the most important cases in which I have been interested are the following:

Territory of Hawaii v. Morita Kaizo, reported in 17th Hawaiian Reports, at page 295. This case involved the question of legality of naturalization of aliens as citizens of the United States by the circuit courts of this Territory. Section 2165 of the Revised Statutes of the United States did not in terms include circuit courts of the Territory, but those tribunals undertook the naturalization of aliens, especially in circuit courts other than that of the first circuit, where is situated the seats of court of the supreme court and the United States district court. Since annexation over 1,200 aliens were naturalized by circuit courts of this Territory, and the question of legality of their naturalization was recurrent, occasioning no little difficulty in respect to criminal prosecutions. The question was finally presented to the supreme court upon a reserved question of law by the judge of the circuit court of the fourth circuit, and the supreme court decided (the chief justice, however, in a concurring opinion expressing much doubt and one of the justices dissenting) that the circuit courts of the Territory had the power of naturalization of aliens as citizens of the United States. An act of Congress confirming such naturalization is certainly advised.

Ex parte Hygashi, reported in 17th Hawaiian Reports, at page 428, was a proceeding in habeas corpus instituted for the purpose of testing the law in respect to criminal prosecutions in this Territory, by complaint or information, in misdemeanor cases. Under the monarchy, provisional government, and Republic but few offenses were not punishable by hard labor, and the Oahu prison, at Honolulu, was the general place of confinement of all persons convicted of criminal offenses within the Territory. Successful pleas in criminal prosecutions had resulted in forcing this office to find an indictment by a grand jury in all cases, irrespective of degree of punishment, the circuit courts having been treated to the ludicrous spectacle of a prosecution for vagrancy or drunkenness upon an indictment by a grand jury. The third legislature sought to correct this condition of affairs and provided for the erection of a jail at Honolulu, to be known as the Honolulu Jail, and provided further that no person convicted of a felony or suffering infamous punishment should be confined therein; nor should any person confined in Honolulu Jail be subjected or compelled to perform labor during the term of his imprisonment. Oahu prison was made the Territorial penitentiary. These provisions of law accomplished a segregation of felons and misdemeanants, but by reason of the fact that the Honolulu Jail adjoined the Oahu prison and was subject to the supervision and control of the warden of that institution, Hygashi claimed that the Honolulu Jail was a part of Oahu prison, and by reason of his detention therein was being subjected to an infamous punishment. The supreme court decided that imprisonment in the Honolulu Jail was not infamous, and for the first time since annexation criminal prosecutions within this Territory proceeded in a regular, methodical, and prompt manner. Under present

conditions offenders are brought to trial before a jury in at least two months after the commission of the offense upon which they stand charged.

The case of *Seattle Brewing and Malting Company v. The Treasurer of the Territory of Hawaii* presented for decision the propriety of a public officer, in the absence of statute, receiving and paying into the treasury money paid under protest. Under the facts it was decided that the money had been paid under protest, and the treasurer, the receiving officer, was personally liable for the amount paid.

The case of *County of Kauai ex rel. John D. Willard et al. v. James L. Holt*, tax assessor of the first taxation division, and *J. K. Farley*, tax assessor of the fourth taxation division, was one which sprung from the provisions of section 1282 of the Revised Laws of Hawaii respecting the county in which corporations should make their returns of income under the income-tax law. The principal place of business of the majority of the sugar plantations of the Territory was by their charters fixt at Honolulu, within the county of Oahu. The counties, for purposes of revenue, receive 50 per cent of the income tax payable within their respective counties, and it was therefore of considerable importance to the county in which the plantation was situated whether the tax payable by the plantation was payable to the county within which the plantation was situated or to the county of Oahu, in which was its principal place of business. The supreme court decided that the tax was payable where the corporation had its principal place of business, which in effect increased considerably the revenue for the county of Oahu, to the detriment of the other counties of the Territory of Hawaii.

The case of the *Trustees of the estate of Bernice Pauahi Bishop v. The Territory of Hawaii* was during this period decided by the Supreme Court of the United States. Its effect, considered with the former decision of *S. N. Damon v. Territory of Hawaii*, reported in volume 194 of the United States Supreme Court Reports, at page 154, was to adjudicate as vested rights all private fisheries within the waters adjoining the several islands wherever held, either by grant or prescription. Thus was terminated a unique series of litigation instituted under sections 95 and 96 of the act of Congress providing for a government for the Territory of Hawaii.

Section 95 of the organic act provides:

That all laws of the Republic of Hawaii which confer exclusive fishing rights upon any person or persons are hereby repealed and all fisheries in the sea waters of the Territory of Hawaii not included in any fish pond or artificial inclosure shall be free to all citizens of the United States, subject, however, to vested rights; but no such vested right shall be valid after three years from the taking effect of this act unless established as hereinafter provided.

Section 96 of the organic act provides:

That any person who claims a private right to any such fishery shall, within two years after the taking effect of this act, file his petition in a circuit court of the Territory of Hawaii, setting forth his claim to such fishing right, service of which petition shall be made upon the attorney-general, who shall conduct the case for the Territory, and such case shall be conducted as an ordinary action at law.

That if such fishery right be established, the attorney-general of the Territory of Hawaii may proceed, in such manner as may be provided by law for the condemnation of property for public use, to condemn such private right of fishing to the use of the citizens of the United States upon making just compensation, which compensation, when lawfully ascertained, shall be paid out of any money in the treasury of the Territory of Hawaii not otherwise appropriated.

Within the two years provided by the statute 82 cases were filed in the local circuit courts by persons claiming a private and vested right to fisheries in the sea waters of the Territory. The first cases to secure decision by the supreme court of the Territory were those of Joseph O. Carter et al., trustees under the will of Bernice P. Bishop, deceased, *v. The Territory*, and Samuel M. Damon *v. The Territory*, decision therein being secured on the 15th day of November, 1902. The Damon case claimed a private right in certain sea fisheries by a recital in the habendum clause in the royal patent grant to the effect that "there is also attached to this land a fishery right in the sea adjoining." In the first-named case the plaintiff claimed private right as pertinent to their land by prescription and ancient Hawaiian custom. The Territory in both cases prevailed and appeals were duly taken to the United States Supreme Court. But the decisions in both cases were reversed by that tribunal, and the Territory now awaits final determination of all pending cases prior to taking the necessary steps to condemn established fishing rights. What the value of these private fishing rights is is difficult of computation, inasmuch as while some fishing rights cover all fish in the sea waters within the boundaries established, some cover only a certain kind of fish, such as mullet, oio, or even in some cases shellfish such as opihis. In any event the cost to the Territory to acquire these private rights upon condemnation proceedings will prove quite large, and it is certainly a matter in which the Territory should secure Federal aid. It would be of great assistance to the Territory should the next session of Congress see fit to appoint a commission to ascertain the probable value of these fisheries and make an appropriation to meet the same, at the same time appointing a special attorney from the Department of Justice to handle all condemnation proceedings instituted under the appropriation.

The case of *Yamanoto v. Alexander Crow*, now pending in the circuit court of the first circuit, is one of moment to the agricultural interests of the Territory. The board of commissioners, under local statutory law in that regard, sought to prevent the importation into the Territory of soil, plants, fruits, or vegetables infested with insects, blight, scale, and diseases injurious or liable to become injurious to trees, plants, or other vegetation of value within the Territory. The defendant, under direction of the board, destroyed some 500 cases of oranges sought to be brought into the Territory at the port of Honolulu, on the ground that the same were infested with blight and scale liable to become injurious to vegetation of value in the Territory. Congress, in whom reposes the constitutional power of regulation of interstate commerce, has not seen fit to protect the several States from the importation of fruit infected with blight and scale, and the case resolves itself into the question of whether or not, in the absence of Federal legislation in that regard, the individual State or Territory can interpose statutory regulation for its own protection. Obviously this case is of considerable importance, and one but need look about upon the fair verdure of Hawaii Nei and discover that her beautiful and fragrant roses are no more—killed and practically exterminated by the introduction of the Japanese beetle.

HIGH SHERIFF'S BUREAU.

[By WILLIAM HENRY.]

By the provisions of act 39 of the legislature of 1905, creating the various counties in the Territory, the direct and absolute control of the police of the various portions of the country was taken away from the high sheriff of the Territory and vested in the sheriffs of the various counties. This act went into effect on the 1st day of July, 1905, and from that time the high sheriff has not been empowered to nor has he exercised any control over the several police forces of the country.

The legislature of 1905 at its extra session provided an appropriation for the salary of "High sheriff and warden of Oahu Prison and Honolulu Jail," thereby making him custodian of all prisoners convicted of felony in all courts of record of the Territory, and also of all persons imprisoned upon conviction of misdemeanor in any and all of the courts of the Territory of Hawaii.

In accordance with the provisions of acts 58 and 59 of the legislature of 1905, no person convicted of felony has been or now is confined in Honolulu Jail, but all persons who are convicted of felony and subjected to infamous punishment in the various courts of record of this Territory are confined in Oahu Prison, and by such imprisonment are segregated and separated from those confined in Honolulu Jail, in which are incarcerated all persons who are committed or held for trial, or as witnesses, or upon civil process or contempt, or upon conviction of misdemeanor, and no person confined in said Honolulu Jail is subjected to, or compelled to perform, labor or to any other infamous punishment.

In order to carry out to the full extent the letter and the spirit of the two last-mentioned acts, it became necessary to remove all persons who were serving sentence upon conviction of felony in prisons in the Territory other than on Oahu as speedily as possible to Oahu Prison; consequently from the jails at Hilo, island of Hawaii; Wailuku, island of Maui; and Lihue, island of Kauai, the only other prisons in which felons were imprisoned, all such persons convicted of felony or subjected to infamous imprisonment were removed to and are now confined in Oahu Prison.

During the year ended June 30, 1906, it became the duty of the high sheriff to carry out the sentence of death imposed, upon conviction of the crime of murder in the first degree, upon six men confined in the prison, these being duly executed in the yard of Oahu Prison in Honolulu in accordance with law.

An act providing for the parole of prisoners went into effect the 26th day of April, 1905, since which date parole has been granted to four persons. In every instance the person to whom parole was granted is now regularly employed, doing well, and obeying all the rules prescribed.

The number of prisoners received under committal and sentence in the twelve months ended June 30, 1905, was 766, which added to those serving sentences at the beginning of that period made a total of 1,283 prisoners. In the same time 237 were discharged from committal and 780 from serving sentence, by expiration of term and otherwise, leaving 266 prisoners on June 30. The highest number of prisoners at any given time was 285 on August 5, 1905, and the

lowest 224 on February 27, 1906. There was a daily average of 153 criminals, 74 misdemeanants, and 28 committal prisoners, making a total daily average of 255. Labor performed by convicted prisoners was 37,425 days on roads, etc., 19,175 days by males held inside, 2,321 days by women inside, and 2,410 by police station servants, being an aggregate of 61,330 days.

Moneys received at the high sheriff's office and deposited with the treasurer of Hawaii have amounted to \$11,493.76 for the twelve months.

ARCHIVES OF HAWAII.

[By R. C. LYDECKER.]

Considerable progress has been made in the preliminary examination of the archives preparatory to their final classification and indexing. All the documents of the foreign office have been gone over, as have those of the different sessions of the legislature, and a good working knowledge of what they consist secured. A partial acquaintance with the documents of several other departments has also been obtained. In addition, visits to Hilo and Lahaina were made and records found, some of which are very valuable.

During my preliminary examination a large number of valuable historical papers have come to light, papers that in some cases add new facts to the present known history of Hawaii, and in others throw new or additional light on that history and which in some cases change the complexion of the event to which they allude.

There is a letter written by Capt. Simon Metcalf, of the *Eleanora*, bearing date of March 22, 1790. The vessel was then at anchor in Kealahakua Bay. The principal interest in connection with this letter is that it is the oldest document thus far found and is written by a man who but a month previous was guilty of the cruel and wanton massacre, off Olowalu, Maui, of a large number of innocent natives. One of the *Eleanora's* boats had been stolen, and in revenge the captain enticed a great number of natives in canoes to assemble around his ship, ostensibly for the purpose of trade, when suddenly a broadside of cannon and musketry was fired upon them, covering the waves with the dead and dying. Over a hundred were killed and many more were wounded.

The famous explorer Vancouver, on the occasion of his last visit here in 1794, left an autograph letter. It is principally in commendation of the different chiefs with whom he came in contact during his several visits, but it also contains a very important paragraph giving his account of the cession, by Kamehameha I, of the island of Hawaii, a transaction that later caused considerable friction between his successors and the British consul at Honolulu. There are other letters bearing on this subject of Kamehameha's cessions, one of which is the retained copy of his letter to George III, in which he announces that "Timoree, King of Atooi, has delivered his island up, and we are now in possession of the whole of the Sandwich Islands." The King then goes on and acknowledges himself as "subject to His Most Sacred Majesty" and asks that a seal and arms be sent him. This letter is dated "Woahoo, August 6, 1810."

The Earl of Liverpool wrote under date of "London, April 30, 1812," and his letter is of interest as showing the attitude of the

British Government in reference to these so-called cessions. Its whole tenor is one of respect to the King's independence, with an implied promise of friendly protection in case of foreign aggression.

One of the most valuable discoveries from a historical standpoint is a journal of the Rev. William Richards, one of the early missionaries, who, at the earnest solicitation of the King, gave up his mission work in 1838 to become the political adviser of the Government. This journal contains copies of the documents that figured in the mission of one Thomas J. Farnham, who was the first envoy sent abroad by the Hawaiian Government on a diplomatic mission. Mr. Farnham, who appears to have been a lawyer from Illinois here on a visit, was in 1840 sent on a secret mission, the knowledge of which was most scrupulously guarded, the King and a few of his most trusted advisers being the only ones conversant with it and when they past away the secret was buried with them. Until this journal of Mr. Richards was found no one had any knowledge of the purpose of the mission, but Mr. Richards tells the complete story. and thus a new page is added to Hawaiian history.

The original proclamation of Rear-Admiral Richard Thomas, of the British navy, restoring the Hawaiian flag, has been found. The name of this gallant officer and high-minded gentleman should ever be held in high honor by Hawaii and the services he rendered the country in 1843 never be forgotten. In this connection there are a number of private letters from Lord George Paulet (the officer who had raised the British flag afterwards lowered by Thomas), written during the course of several years after his return to England, the sentiments of which place that officer in a better light than history had recorded him.

Another important document is a certified copy of a letter written on July 14, 1851, by Daniel Webster, then Secretary of State. This letter is address to United States Commissioner Luther Severance, and in it the Secretary stated in the most emphatic language the policy of the United States in reference to the independence of the Hawaiian Islands, and that the United States would never consent to see them taken possession of by a foreign power. The occasion that called forth this letter was the action of the Hawaiian Government in placing the islands provisionally under the protection of the United States on March 10, 1851, when they were having serious trouble with the French consul at Honolulu, M. Perrin.

Two copies of the first laws ever printed and promulgated have been found. These are "Regulations for the port of Honoruru, Oahu." They were issued June 2, 1825, and were doubtless drawn up by Lord Byron, of the British man-of-war *Blonde*, he having come here with the bodies of Kamehameha II and his Queen, who had died in London the previous year. There are also a couple of copies of the first criminal code, published in native, December 8, 1827. This contains seven laws forbidding murder, theft, selling of rum, gambling, etc.

The archives contain hundreds of letters written by the chiefs of the time, beginning in 1824, soon after the missionaries had reduced the language to writing. These letters are probably of the utmost value, for they doubtless contain many facts of Hawaiian history now unknown, and they should be translated as soon as possible. They

are written in the pure Hawaiian of the early days, and as many corruptions have crept into the language during the past fifty years or more, the natives of the present day, with few exceptions, have great difficulty in reading them. Some words then in use have dropt out of the language entirely, others have been so changed that in some cases the original meaning is quite reversed. This, with the introduction of new words to some extent to take the place of old ones and also to convey new ideas, creates the utmost confusion in the mind of the average Hawaiian of to-day when attempting to translate such old documents.

Very respectfully,

G. R. CARTER,
Governor of the Territory of Hawaii.

The SECRETARY OF THE INTERIOR.

APPENDIX.

TERRITORIAL REGISTER AND DIRECTORY, 1906.

TERRITORIAL OFFICIALS.

EXECUTIVE.

George R. Carter, Governor.
A. L. C. Atkinson, Secretary.
E. C. Peters, Attorney-General.
A. J. Campbell, Treasurer.
J. H. Fisher, Auditor.
C. S. Holloway, Superintendent of Public Works.
W. H. Babbitt, Superintendent of Public Instruction.

J. W. Pratt, Commissioner of Public Lands.
W. E. Wall, Surveyor.
L. E. Pinkham, President Board of Health.
William Henry, High Sheriff.
F. D. Creedon, Private Secretary to Governor.

DELEGATE TO CONGRESS.

J. K. Kalaniana'ole.

JUDICIAL.

W. F. Frear, Chief Justice, Supreme Court.
A. S. Hartwell, Associate Justice, Supreme Court.
A. A. Wilder, Associate Justice, Supreme Court.
Henry Smith, Clerk, Judiciary Department.
J. T. De Bolt, First Judge, First Circuit, Oahu.
Alex. Lindsay, jr., Second Judge, First Circuit, Oahu.

W. J. Robinson, Third Judge, First Circuit, Oahu.
A. N. Kepoikal, Judge, Second Circuit, Maui.
J. A. Matthewman, Judge, Third Circuit, Hawaii.
Chas. F. Parsons, Judge, Fourth Circuit, Hawaii.
J. Hardy, Judge, Fifth Circuit, Kauai.
P. L. Weaver, Judge, Court of Land Registration.

NATIONAL GUARD OF HAWAII.

Col. J. H. Soper, Adjutant-General.

Col. J. W. Jones, Commanding First Regiment.

BOARD OF IMMIGRATION.

A. L. C. Atkinson, President.
John J. Carden, Member.
Joseph P. Cooke, Member.

John H. Craig, Member.
E. D. Tenney, Member.

BOARD OF COMMISSIONERS OF AGRICULTURE AND FORESTRY.

L. A. Thurston, Commissioner and President.
W. M. Giffard, Commissioner.
J. F. Brown, Commissioner.
A. W. Carter, Commissioner.
G. P. Wilder, Commissioner.

C. S. Holloway, Ex officio Secretary.
Alexander Crow, Superintendent of Entomology.
R. S. Hosmer, Superintendent of Forestry.
Victor A. Norgaard, Superintendent of Animal Industry and Veterinarian.

BOARD OF COMMISSIONERS OF PUBLIC ARCHIVES.

A. L. C. Atkinson, Chairman, ex officio.
Prof. W. D. Alexander, Commissioner.

A. F. Judd, Commissioner.
R. C. Lydecker, Secretary.

FEDERAL OFFICIALS.

DEPARTMENT OF JUSTICE—UNITED STATES DISTRICT COURT.

Sanford B. Dole, Presiding Judge.
R. W. Breckons, United States District Attorney.

J. J. Dunne, Assistant United States District Attorney.
F. L. Hatch, Clerk.

TREASURY DEPARTMENT.

CUSTOMS DIVISION.

E. R. Stackable, Collector of Customs.
R. C. Stackable, Special Deputy Collector.
Raymer Sharp, Chief Examiner.
A. B. Ingalls, Examiner and Gauger.
M. H. Drummond, Deputy Collector and Cashier.
C. H. Raven, Deputy Collector.

W. O. Aiken, Deputy Collector, Kahului, Maui.
B. K. Baird, Deputy Collector, Hilo, Hawaii.
W. D. McBryde, Deputy Collector and Inspector, Koloa, Kauai.
R. R. Elgin, Deputy Collector, Mahukona, Hawaii.

INTERNAL-REVENUE SERVICE.

R. H. Chamberlain, Collector Internal Revenue.
W. F. Drake, Chief Deputy Collector.
R. S. Johnstone, Division Deputy.

O. A. Berndt, Deputy Collector-Gauger.
Lee Sing, Deputy Collector-Cashier.
Clarence D. Pringle, Storekeeper-Gauger.

PUBLIC HEALTH AND MARINE-HOSPITAL SERVICE.

L. E. Cofer, Passed Assistant Surgeon, United States Public Health and Marine-Hospital Service, in Command.
 Dunlap Moore, Passed Assistant Surgeon.
 Carl Ramus, Passed Assistant Surgeon.
 A. N. Sinclair, Acting Assistant Surgeon.
 William F. James, Acting Assistant Surgeon.
 E. F. Smith, Medical Inspector.
 J. E. Beck, Pharmacist.
 John J. Grace, Acting Assistant Surgeon, Hilo, Hawaii.

John Weddick, Acting Assistant Surgeon, Kahului, Maui.
 J. B. Malony, Acting Assistant Surgeon, Lahaina, Maui.
 Harry Cooper, Acting Assistant Surgeon, Koloa, Kauai.
 B. D. Bond, Acting Assistant Surgeon, Mahukou, Hawaii.

DEPARTMENT OF COMMERCE AND LABOR.

IMMIGRATION SERVICE.

R. C. Brown, Inspector in Charge.
 J. K. Brown, Chinese Inspector.

R. L. Halsey, Immigrant Inspector.

UNITED STATES LIGHT-HOUSE ESTABLISHMENT.

Capt. J. R. Slattery, Corps of Engineers, U. S. Army, Assistant to the Light-House Engineer, Twelfth District. In local charge of the Hawaiian Subdivision of the Twelfth Light-House District.

COAST SURVEY DIVISION.

W. D. Alexander, Assistant in United States Coast and Geodetic Survey, in charge of branch office

NAVIGATION BUREAU.

Norman Watkins, United States Shipping Commissioner.

DEPARTMENT OF AGRICULTURE.

HAWAII EXPERIMENTAL STATION.

Jared G. Smith, Special Agent in Charge.
 Delos L. Van Dine, Entomologist.
 Edmund C. Shorey, Chemist.
 Alice R. Thompson, Assistant Chemist.

J. Edgar Higgins, Horticulturist.
 F. G. Krauss, Rice Expert.
 C. R. Blacow, Tobacco Expert.
 Q. Q. Bradford, Farm Foreman.

WEATHER BUREAU.

William Stockman, Section Director.

NAVY DEPARTMENT.

UNITED STATES NAVAL STATION, HAWAII.

Rear-Admiral Samuel W. Very, Commandant, U. S. Navy.
 Lieut. Commander James F. Carter, Captain of the Yard, U. S. Navy.
 Lieut. William R. Cushman, Equipment and Ordnance Officer, U. S. Navy.

Charles G. Smith, Passed Assistant Surgeon, U. S. Navy, Medical Officer.
 Benjamin H. Brooke, Assistant Paymaster, U. S. Navy, Pay Officer and General Storekeeper.
 James T. Winn, Carpenter, U. S. Navy.
 Thomas Dunn, Paymaster's Clerk, U. S. Navy.

UNITED STATES MARINE BARRACKS.

Maj. John H. Russell, U. S. Marine Corps, Commanding Marines.

First Lieut. Epaminondas L. Bigler, U. S. Marine Corps.

WAR DEPARTMENT.

UNITED STATES MILITARY IN HAWAII.

Maj. Robert C. Van Fleet, Commanding.
 Capt. Charles F. Humphrey, Quartermaster, U. S. Army, Depot Quartermaster and Commissary.
 Capt. Ross L. Bush.
 Capt. James V. Heidt.
 Capt. Ralph E. Ingram.
 Capt. John B. Schoeffel.
 First Lieut. James G. Hannah, Battalion Adjutant.
 First Lieut. John B. Shuman.

First Lieut. Kurtz Eppley.
 First Lieut. William E. Roberts.
 First Lieut. Josiah C. Minus.
 First Lieut. Robert M. Blanchard, Medical Department.
 Second Lieut. Hiram M. Cooper.
 Second Lieut. Maynard A. Wells, Battalion Quartermaster and Commissary.
 Second Lieut. Manuel M. Garrett.
 Second Lieut. Charles F. Conry.
 Second Lieut. Rolland W. Case.

POST-OFFICE DEPARTMENT.

POSTAL SERVICE, HAWAII.

Joseph G. Pratt, Postmaster.
 J. T. Stayton, Assistant Postmaster.
 F. E. Colby, Chief Clerk, Money-Order Department.
 William McCoy, Chief Clerk, Registry Department.

W. C. Kenake, Chief Mailing Clerk.
 E. M. Brown, Superintendent of Delivery.
 George W. Carr, Assistant Superintendent Railway Mail Service.
 F. J. Hare, Post-Office Inspector.

Oversized Foldout

157° 40'

157° 30'

20° 40'

20° 30'

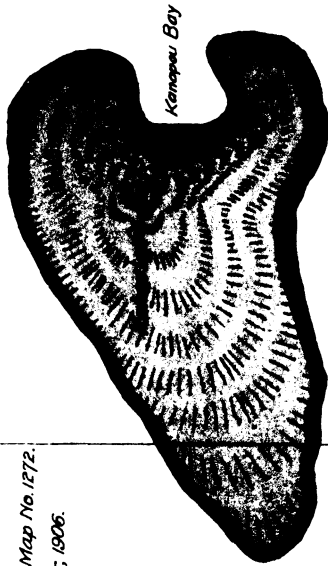
HAWAII TERRITORY SURVEY
Walter E. Mall, Surveyor

KAHOOLAWE

Scale 1 Inch = 40000 Feet

Traced from Gov't Survey Reg. Map No. 1272.

H. E. Newton October, 1906.



Kahooolawe Pt.

20° 30'

20° 40'

157° 40'

157° 30'

Oversized Foldout

Oversized Foldout

Oversized Foldout

Oversized Foldout

Oversized Foldout

Oversized Foldout

Oversized Foldout

BOUND

APR 28 1950

UNIV. OF MICH.
LIBRARY



